



ATLAS Institute Ph.D. Program Handbook (2025)

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THIS IS NOT A SUBSTITUTE FOR READING THE GRADUATE SCHOOL RULES. PLEASE READ AND UNDERSTAND THOSE GUIDELINES HERE:

<https://www.colorado.edu/graduateschool/faculty-staff/graduate-school-policies-procedures>

This document describes the major requirements of the ATLAS Ph.D. program. The ATLAS Ph.D. program works in conjunction with the CU [Graduate School Rules](#); you are bound by both policies. When the two conflict, the [Graduate School Rules](#) take precedence, unless noted otherwise. If you have questions about the [Graduate School Rules](#), you may talk with an ATLAS Graduate Advisor, the ATLAS Graduate Program Administrator, or with Graduate School Graduate Advisors. Please note that, in addition to the explicit requirements listed here and in the [Graduate School Rules](#), there are many other implicit expectations of Ph.D. students, such as interacting regularly with the general ATLAS research community, attending lab meetings in your respective research group, submitting fellowship applications, at times working as a Teaching Assistant (TA) or Research Assistant (RA), etc. Your research advisor may have expectations not stated in this handbook and you are responsible to work with your advisor to understand and meet these expectations, as set forth in your Student-Advisor Expectations Agreement (SAEA) to be approved by the ATLAS Graduate Committee.

The rules described in this handbook may change during your time in the program. If a handbook change happens, you will be allowed to adhere either to the rules that were in effect at the time of your admission, or to the most recent version of the handbook rules.

Any requests for review by the Graduate Committee (e.g., exceptions, as allowed under these policies) should be submitted in writing by sending an email to the Graduate Committee at atlas-gradcomm@colorado.edu while CCing your advisor. Alternatively, such petitions may be submitted to the Graduate Committee by filling out the [ATLAS Graduate Petition Form](#). The Graduate Committee operates only during the academic year, constituting fall and spring semesters, but may respond to requests in summer at the discretion of the Graduate Committee chair.

Overview

ATLAS values interdisciplinarity, intellectual breadth, and diversity. There are a variety of pathways to success in such a broad program. Many resources exist to help students in the completion of their Ph.D., including their advisor, the Graduate Program Administrator, and the ATLAS Graduate Committee. However, the ultimate responsibility for completing a Ph.D. lies solely with the student. This document specifies expectations and program milestones to help students navigate this process successfully and in a timely manner. Communication between

students, advisors, and the ATLAS Graduate Committee will help tailor this general plan to the student's specific goals. Please note that Ph.D. students are responsible to uphold the expectations set forth by their individual advisor(s), which may vary among different labs. It is the responsibility of the advisor to express these expectations clearly in their Student-Advisor Expectations Agreement (SAEA) and to ensure the students receive these communicated expectations in a timely manner.

ATLAS Ph.D. students work in many different areas at the intersections of creative technology and design. Doctoral-level education entails a combination of coursework and research experience; neither alone is sufficient. The foundational curricula and coursework common to all students shall:

- Be interdisciplinary, covering a breadth of technical, social, and creative content. Coursework will typically include courses offered by at least two departments.
- Include the ATLAS Colloquium at least one semester in-person, the ATLAS Research Methods class, and the ATLAS Research Career Development class.
- Complete a minimum of thirty credit hours of coursework numbered 5000 or above with a B grade or higher in all coursework.
- Complete a minimum of thirty additional credit hours of dissertation work.

Ph.D. students may transfer up to 21 semester hours of graduate coursework from prior graduate work towards the 30-credit-hour requirement; however, such transfer credit must be approved by the student's advisor, the ATLAS Graduate Committee, and the Graduate School.¹

All Ph.D. students are expected to gain experience individually, with faculty, and/or with other students in writing papers for publication in peer-reviewed journals and/or conference proceedings, in presenting their research at professional workshops, conferences, and/or exhibitions, and in writing grant proposals. Students with a deficiency in spoken or written English must take courses in spoken or written English or complete other remediation to address this deficiency. All students are expected to attend professional lectures and colloquia on campus and in the region, in addition to the ATLAS Colloquium (ATLS-7000) in fields relevant to their interests.

The ATLAS Graduate Committee will ask students regularly for documentation of their scholarly and research activities. The ATLAS Graduate Committee and faculty advisors will review these documents in order to assess each student's progress in the program.

Deadlines specified in this document refer to semesters in the academic year (AY),² constituting Fall and Spring semesters only (not Summer). For example, the "third semester" is typically the

¹ See [Graduate School Rules](#): section 3, p.12 "Transfer Credits"

² An academic year is defined as two consecutive semesters not including summer, typically consecutive Fall and Spring semesters, excepting off-cycle start dates and semesters on academic leave.³

Fall semester of a student's second year in the program. We adhere to the Graduate School policy on leave.³ Semesters on leave are not counted as part of this progression.

Students may request to change advisors and/or committee members at any time during their studies, except in the same semester as the Dissertation Defense. To be eligible for funding, students must maintain an advisor throughout the program. Students must notify the ATLAS Graduate Committee of any changes to their advisor via the online [Advisor Form](#) or committee members via the online [Committee Form](#). The Graduate Committee must approve new advisors. Changes to committee members require only advisor approval, but must be communicated to the Graduate Committee as outlined in Steps 4–6 below. Any such changes shall not require revisiting any previously completed milestones, except as may be required by a new advisor.

Outline of Program Requirements

To fulfill the requirements for the ATLAS Ph.D. Program, a student takes the following steps (see also an example timeline in Table 1):

1. Complete the Student-Advisor Expectations Agreement (SAEA)
2. Develop the Plan of Study with the Ph.D. advisor
3. Complete the required 30 credit hours of coursework and an additional 30 credit hours of dissertation credits (original research supervised by the dissertation committee)
4. Pass the Preliminary Exam ("Prelim")
5. Pass the Comprehensive Exam ("Comps")
6. Complete and successfully defend the Doctoral Dissertation

Table 1. Example timeline for the ATLAS Ph.D. Program.

<i>Before Day 1</i> Student-Advisor Expectations Agreement	<ul style="list-style-type: none"> • Review and sign the Student-Advisor Expectations Agreement (SAEA) with the advisor(s)
<i>Academic Year 1</i> Coursework, Plan of Study	<ul style="list-style-type: none"> • Take 2-3 classes each semester as determined in consultation with the student's Ph.D. advisor. • Deadline: Submit the Plan of Study, developed in consultation with the Ph.D. advisor, no later than the end of Semester 2. Take Research Methods, Research Career Development, and at least one semester of Colloquium.
<i>Academic Year 2</i> Coursework, Research, Preliminary Exam	<ul style="list-style-type: none"> • Take 2-3 classes each semester as determined by the student's Plan of Study. • Form the Preliminary Advisory Committee. • Deadline: Complete the Preliminary Exam no later than the end of

³ See [Graduate School Rules](#), Section 11: Time Limits for Completion of Degrees

	Semester 4.
<i>Academic Years 3-4</i> Coursework, Research, Comprehensive Exam	<ul style="list-style-type: none"> • Complete remaining required coursework, if needed, as determined by the student's Plan of Study, and dissertation credits. • Form the Dissertation Committee. • Deadline: Pass Comprehensive Exam no later than end of Semester 8 and advance to candidacy.⁴
<i>Academic Years 4+</i> Research, Dissertation & Defense	<ul style="list-style-type: none"> • Take remaining required coursework, if needed, as determined by the student's Plan of Study, and dissertation credits. The Graduate School requires registering for 5 credit-hours during the defending semester. • Deadline: Complete and defend the Doctoral Dissertation.

Step 1: Complete a Student-Advisor Expectations Agreement

Before the first day of the first semester, students and advisors are expected to complete a Student-Advisor Expectations Agreement (SAEA), unless your advisor has formally opted out of this process. Both the advisor and advisee will sign this document and it will be kept on file by the advisor. This lab-specific document outlines the expectations for both the student and the advisor. Topics covered on the SAEA may include but are not limited to:

- Expectations for study plans, prelims, comprehensive exams, dissertation
- Lab Work/Teaching Expectations and Requirements (GRA and TA appointments)
- Graduation and milestone completion timeline
- Professional obligations and dates
- Publication expectations
- Lab values, rules and etiquette
- Lab hours and communication expectations
- Meeting frequency
- Evaluation of progress frequency
- Documentation and record keeping
- Feedback
- Boundaries
- Conflict Resolution

Step 2: Submit a Plan of Study Developed with Ph.D. Advisor

Each student shall work with their advisor during their first two semesters to design a customized Plan of Study that addresses that student's interests and provides the breadth and depth of knowledge needed for their dissertation research. To maintain good standing in the

⁴ A Ph.D. *student* becomes a Ph.D. *candidate* only upon passing the Comprehensive Exam.

program, all students must complete and submit the Plan of Study by the end of their second semester using the online [Plan of Study Form](#).

An ATLAS **Plan of Study**:

- is a 3–5 page document that is approved by the ATLAS Graduate Committee and signed by the student's Ph.D. advisor
- outlines the general research area, courses to be taken, and research or disciplinary-appropriate activities planned

The student is not yet required to have an advisory committee at this point, but may choose to select members of their advisory committee, with input from their advisor.

Students who fail to complete the Plan of Study by the end of their second semester in the program are placed on probation and are ineligible for ATLAS-supported research assistant (RA) or teaching assistant (TA) positions. Students on probation for an overdue Plan of Study will be dismissed from the program if the Plan of Study has not been approved by the end of their third semester in the program. The Graduate Committee may request a meeting with the student and their advisor(s) during the probationary period to ensure timely submission of the Plan of Study.

Step 3: Coursework and Dissertation Credits

30 hours of coursework are required to graduate with a Ph.D.; these courses may be taken throughout the course of study and may include independent (directed) studies. While students are encouraged to complete these 30 hours before their Comprehensive Exam, [Graduate School Rules](#) only require that they be completed before graduation. Students are responsible for ensuring that they comply with these rules and complete the following coursework:

- A minimum of 30 hours of coursework, including one in-person semester of ATLAS colloquium, the ATLAS Research Methods class, and the ATLAS Research Career Development class.
- A minimum of 30 hours of dissertation credits. Students must be enrolled in dissertation credit hours in the semester they take the Comprehensive Exam, and a minimum of 5 dissertation credit hours in the semester of the Dissertation Defense.

Step 4: Pass the Preliminary Exam (“Prelims”)

To maintain good standing in the ATLAS Ph.D. Program, all students must complete their Preliminary Exam by the end of their second academic year (*i.e.*, typically their fourth semester in the program). The purpose of the Preliminary Exam is to demonstrate the student's preparation for scholarly work in their chosen area.

ATLAS Preliminary Exams comprise **two components**:

1. **A written component.** The format and expectations for the written exam may be defined in the Student-Advisor Expectations Agreement, which may vary among different labs. The written exam component is due at least 21 days before the oral component of the exam and before the end of the student's second academic year (*i.e.*, fourth semester) in the program. The committee chair is responsible for confirming with the Graduate Program Administrator that the written exam was received at least 21 days prior to the oral component of the exam.
2. **An oral component.** Before the end of the semester in which the written component is submitted, the oral component of the exam presents the content of the written component to the Preliminary Advisory Committee and members of the public.

ATLAS Preliminary Exams are administered by a **Preliminary Advisory Committee** comprising at least three members of the faculty: the student's advisor (committee chair) and two other members, who must either be regular members of the CU Graduate Faculty or hold a Graduate Faculty Appointment (GFA) to serve on advisory committees. Additionally, ATLAS requires at least one member of the Preliminary Advisory Committee be an ATLAS-rostered faculty member.⁵ The student's Preliminary Advisory Committee is responsible for considering the written and oral components of the exam to assess the student's performance and potential for success in the program going forward.

To complete the Preliminary Exam, the student will take the following steps (see also Table 2 for an expected timeline):

1. Select the members of the Preliminary Advisory Committee, in consultation with the Ph.D. advisor, and inform the Graduate Program Administrator by email of the membership of the Preliminary Advisory Committee by the end of the third semester in the program (typically the Fall semester of the second academic year).
2. Obtain a directive for the written component of the exam from the Preliminary Advisory Committee, complete the written component of the exam, and submit the written component of the exam to the Preliminary Advisory Committee at least 21 days prior to the oral component of the exam.
3. Schedule a date, in consultation with the Preliminary Advisory Committee, for the oral component of the Preliminary Exam, to occur before the end of the fourth semester in the program (typically the Spring semester of the second academic year), and complete the [ATLAS Ph.D. Exam Webform](#) at least 21 days prior to the oral component of the exam.
4. Pass the oral component of the exam on the scheduled date. Submit the [Preliminary Exam Result Form](#) to the Graduate Program Administrator.

⁵ An ATLAS-rostered faculty member is defined as a member of the faculty whose salary is paid by the ATLAS Institute.

Table 2. Expected timeline for ATLAS Preliminary Exam.

Before the end of the third semester	<ul style="list-style-type: none">• Select the Preliminary Advisory Committee members• Inform the Graduate Program Administrator of the Preliminary Advisory Committee members by email• The Graduate Program Administrator facilitates the request for Graduate Faculty Appointments for external committee members if necessary
Before scheduling the oral component of the exam	<ul style="list-style-type: none">• Obtain a directive for the written component of the Preliminary Exam from the Preliminary Advisory Committee• Submit the written component of the Preliminary Exam to the Preliminary Advisory Committee
At least 21 days before the end of the fourth semester	<ul style="list-style-type: none">• Schedule the oral component of the Preliminary Exam at least 21 days in advance of the oral presentation
Before the end of the fourth semester	<ul style="list-style-type: none">• Pass the oral component of the Preliminary Exam and submit the Preliminary Exam Result Form to the Graduate Program Administrator.

The Preliminary Advisory Committee may select one of three outcomes of the Preliminary Exam: “pass,” “fail,” or “conditional pass.” When a student passes the exam, they need to collect signatures on the [Preliminary Exam Result Form](#) and submit it to the Graduate Program Administrator. In the case of a conditional pass, the Preliminary Advisory Committee must specify in writing the additional required work and a deadline for its completion. After the additional work is submitted, the Preliminary Advisory Committee may only select “pass” or “fail” as the outcome. If the student fails to submit the completed work by the specified deadline, they will be deemed to have failed the Preliminary Exam.

A student who fails the written and/or oral components of the Preliminary Exam has only one opportunity to retake the failed component(s) of the exam. The retake must occur before the end of the next academic semester that follows the semester in which the Preliminary Exam was first taken. Students who do not pass their Preliminary Exam by the end of their fourth academic semester (*i.e.*, 2 academic years into the program) are placed on probation and are ineligible for ATLAS-supported RA or TA positions. Students on probation will be dismissed from the program if the Preliminary Exam has not been passed by the end of their fifth semester in the program. The graduate committee may request a meeting with the student and their advisor(s) during the probationary period to ensure timely completion of the Preliminary Exam. A student who fails any component of the Preliminary Exam twice will be dismissed from the program.

Step 5: Pass the Comprehensive Exam (“Comps”)

To maintain good standing in the program, ATLAS Ph.D. students are expected to pass their Comprehensive Exam (also known as the Dissertation Proposal) by the end of their eighth semester (*i.e.*, fourth academic year) in the program. Note that a Student-Advisor Expectations Agreement may specify an earlier date for the Comprehensive Exam than is required by the ATLAS Ph.D. Handbook Rules. The purpose of the Comprehensive Exam is to demonstrate and approve the student’s completed research and proposed research agenda for the remainder of the program.

ATLAS Comprehensive Exams comprise **two components**:

1. **A written component.** The written component must:
 - Review related work (*i.e.*, include a literature review section)
 - Summarize the student’s completed research to date
 - Include a proposal of planned research and/or discipline-specific activities to complete the dissertation
 - Be submitted to the student’s Dissertation Committee no less than 21 days prior to the scheduled date of the oral exam component
2. **An oral component.** The format of the oral component is a presentation made to the Dissertation Committee and members of the public that summarizes related work, completed research and/or discipline-specific activities, and planned research and/or discipline-specific activities, as outlined in the written component of the exam.

ATLAS Comprehensive Exams are administered by a **Dissertation Committee**, which is responsible for assessing the merit of the research and the student’s preparation to conduct the proposed research, and which comprises at least five members. The composition of the Dissertation Committee is governed by both the [Graduate School Rules](#) and the ATLAS Ph.D. Handbook Rules. Graduate School Rules require that at least three members of the Dissertation Committee must be CU Boulder faculty members, and at least one member must be external to the student’s major department.⁶ Exceeding these requirements, ATLAS

⁶ The [Graduate School Rules](#) specify the composition of committees: “The examination is conducted by a committee appointed by the chair of the major department and approved by the Dean of the Graduate School, which consists of at least five persons, one of whom must be from outside the student’s major department. Three of the members must be CU Boulder Graduate Faculty. The chair and outside member of the committee must have regular Graduate Faculty appointments. The other committee members must have either regular or special Graduate Faculty appointments. The outside member must

additionally requires that at least one member of the committee must be rostered on the ATLAS faculty, and at least one external member must **not** be rostered as a regular member of the CU Boulder faculty. Any committee member who is not a member of the CU Boulder Graduate Faculty must obtain a Graduate Faculty Appointment with approval to serve as an external committee member. The student is responsible to work with an ATLAS Graduate Program Administrator to complete the necessary documentation for all committee member appointments. The Dissertation Committee will generally serve throughout the student's dissertation research period; committee changes must be submitted to the Graduate Committee with the approval of the student's advisor using the [Committee Form](#).

To complete the Comprehensive Exam, the student will take the following steps (see also Table 3 for an expected timeline):

1. Select the members of the Dissertation Committee, in consultation with the Ph.D. advisor, and inform the Graduate Program Administrator by email of the membership of the Dissertation Committee by the end of the semester that precedes the intended date of the Comprehensive Exam.
2. Schedule a date, in consultation with the Dissertation Committee, for the oral component of the Comprehensive Exam, to occur before the end of the eighth semester in the program.
3. Complete the written component of the Comprehensive Exam and submit it to the Dissertation Committee, as well as the ATLAS Graduate Committee via the [ATLAS Ph.D. Exam Webform](#), at least 21 days prior to the oral component of the exam. The student is also responsible for verifying with the Graduate Program Administrator that all exam forms have been approved by the Graduate School and returned no later than seven days in advance of the exam.
4. Pass the oral component of the exam on the scheduled date and submit the [Doctoral Comprehensive Exam Form](#) to the Graduate School.

Table 3. Expected timeline for ATLAS Comprehensive Exam.

Before the end of the semester preceding the Comprehensive Exam	<ul style="list-style-type: none"> • Select the Dissertation Committee members • Inform the Graduate Program Administrator of the Dissertation Committee members by email • The Graduate Program Administrator facilitates the request for Graduate Faculty Appointments for external committee members if necessary
At least 21 days before the oral component of the Comprehensive Exam	<ul style="list-style-type: none"> • Schedule the oral component of the Comprehensive Exam with the Dissertation Committee • Submit the written component of the Comprehensive Exam to the Dissertation Committee • Submit the written component and the Comprehensive Exam date to

either have a regular Graduate Faculty appointment in a different department at CU Boulder or hold a special Graduate Faculty appointment with approval to serve as outside member"

	the Graduate Committee using the ATLAS Ph.D. Exam Webform • Consult with Graduate Program Administrator to facilitate the documentation and announcement of the exam
Before the end of the eighth semester	• Pass the oral component of the Comprehensive Exam in the same semester the written component is submitted • Complete the Graduate School Doctoral Comprehensive Exam Form

The Dissertation Committee may select one of three outcomes of the Comprehensive Exam: “pass,” “fail,” or “conditional pass.” In the case of a conditional pass, the Dissertation Committee must specify in writing the additional required work and a deadline for its completion. After the additional work is submitted, the Dissertation Committee may only select “pass” or “fail” as the outcome. If the student fails to submit the completed work by the specified deadline, they will be deemed to have failed the Comprehensive Exam.

A student who fails the written and/or oral components of the Comprehensive Exam has only one opportunity to retake the failed component(s) of the exam. The retake must occur before the end of the next academic semester that follows the semester in which the Comprehensive Exam was first taken. Students who do not pass their Comprehensive Exam by the end of their eighth academic semester (*i.e.*, 4 academic years into the program) are placed on probation and are ineligible for ATLAS-supported RA or TA positions. Students on probation may be dismissed from the program if the Comprehensive Exam has not been passed by the end of their ninth semester in the program. The graduate committee may request a meeting with the student and their advisor(s) during the probationary period to ensure timely completion of the Comprehensive Exam. A student who fails any component of the Comprehensive Exam twice will be dismissed from the program.

Step 6: Dissertation Defense (Final Thesis Exam)

Students must adhere to [Graduate School Rules](#) regarding timelines for completing the Dissertation Defense. Generally students pass the Dissertation Defense during or before their 12th semester (*i.e.*, their sixth academic year) in the program. Note that a Student-Advisor Expectations Agreement may specify an earlier date for the Dissertation Defense than is required by the Graduate School or ATLAS Ph.D. Handbook Rules. The purpose of the Dissertation Defense is to provide an occasion to present, recognize, discuss, and formally evaluate the completed doctoral work.

An ATLAS Dissertation Defense comprises **two components**:

1. **A written dissertation** that complies with formatting and submission guidelines

specified in the [Graduate School Rules](#). This document must be shared with the student's Dissertation Committee and ATLAS Graduate Committee no later than 21 days prior to the scheduled exam. At this stage, dissertation drafts will be shared with ATLAS faculty and students.

2. **An oral defense** of the dissertation made to the Dissertation Committee and members of the public.

ATLAS Dissertation Defenses are administered by the Dissertation Committee, selected at least one semester before the Comprehensive Exam as outlined in Step 5. Dissertation Committee changes must be submitted to the Graduate Committee with the approval of the student's advisor using the [Committee Form](#).

To complete the Dissertation Defense, the student will take the following steps (see also Table 4 for an expected timeline):

1. In consultation with the Dissertation Committee, schedule a date for the Dissertation Defense that complies with the Student-Advisor Expectations Agreement, Graduate School Rules, and ATLAS Ph.D. Handbook Rules.
2. Complete the written Doctoral Dissertation, submit it to the Dissertation Committee, and submit the [ATLAS Ph.D. Exam Webform](#) to the Graduate Committee at least 21 days prior to the scheduled Dissertation Defense. The student is also responsible for verifying with the Graduate Program Administrator that all exam forms have been approved by the Graduate School and returned no later than seven days in advance of the exam.
3. Pass the Dissertation Defense on the scheduled date. Submit the [Doctoral Final Examination Form](#) to the Graduate School.
4. Submit the final Dissertation to the Graduate School with the signed [Thesis Approval Form](#).

Table 4. Expected timeline for ATLAS Dissertation Defense.

At least 21 days before the Dissertation Defense	<ul style="list-style-type: none"> • Schedule the Dissertation Defense with Dissertation Committee • Submit the written Doctoral Dissertation to Dissertation Committee • Submit the written Doctoral Dissertation and oral defense date to the Graduate Committee using the ATLAS Ph.D. Exam Webform • Consult with the Graduate Program Administrator to facilitate the documentation and announcement of the Defense
Before the end of the 12th semester	<ul style="list-style-type: none"> • Pass the the Dissertation Defense • Complete the Graduate School Doctoral Comprehensive Exam Form • Complete the Thesis Approval Form

The Dissertation Committee may select one of three outcomes of the Comprehensive Exam: "pass," "fail," or "conditional pass." In the case of a conditional pass, the Dissertation Committee must specify in writing the additional required work and a deadline for its completion. After the additional work is submitted, the Dissertation Committee may only select

“pass” or “fail” as the outcome. If the student fails to submit the completed work by the specified deadline, they will be deemed to have failed the Dissertation Defense.

A student who fails the written and/or oral components of the Dissertation Defense has only one opportunity to retake the failed component(s) of the exam. The retake must occur before the end of the next academic semester that follows the semester in which the Dissertation Defense was first taken. Students who do not pass their Dissertation Defense by the end of their 12th academic semester (*i.e.*, after six academic years in the program) are placed on probation and are ineligible for ATLAS-supported RA or TA positions. Students on probation may be dismissed from the program if the Dissertation Defense has not been passed by the end of their 14th semester in the program. The graduate committee may request a meeting with the student and their advisor(s) during the probationary period to ensure timely completion of the Dissertation Defense. A student who fails any component of the Dissertation Defense twice will be dismissed from the program.