

Preliminary and Final Examinations



Inquisition Scene, by Francisco Goya, 1816

Prelim/Final Workshop

The Prelim/Final Workshop Slides/Video Posted:

Sept. 4 is the Deadline to Register for Fall 2020 Classes

September 4 is the last day to register for Fall 2020 classes and add classes via Self-Service!

8/18/2020

Lance Cooper

[Doctoral Research Support Program \(DRSP\) at the University of Illinois](#)

The [Doctoral Research Support Program \(DRSP\)](#) is a campus-wide one-year pilot initiative that assists doctoral students enrolled at the University of Illinois.

8/16/2020

Lance Cooper

[Grainger Fall 2020 Virtual Career Fair, Sept. 9 - 11](#)

The [Engineering Career Fair for Fall 2020](#) will be virtual and will be held from Sept. 9 - 11.

8/16/2020

Lance Cooper

[Prof. Nick Jackson Has An Opening for a Theoretical/Computational Grad Student](#)

The [Jackson lab in the Department of Chemistry](#) has an opening for a theoretical/computational graduate student for a Ph.D. research project.

• [2020 Virtual Open House](#)

Physics Workshops

- [Physics Careers Seminar](#)
- [Physics Careers Archive](#)
- [Microaggressions Workshop Slides](#)
- [Deaf Culture Workshop Slides](#)
- [Fellowship Workshop](#)
- [Prelim/Final Workshop](#)
- [Scientific Poster Tips](#)
- [1st Year Grad Student Orientation](#)
- [Rebecca's MyPhysics Talk](#)
- [Grad School Workshop](#)

Grad College Info

- [Handbook](#)
- [General Resources](#)
- [Mentoring Resources](#)

Slides will be posted on the grad blog

<https://courses.physics.illinois.edu/phys596/fa2021/prelimworkshop.html>

Videotape will be posted on "Illinois Physics Graduate Students" Media Space Channel:

<https://mediaspace.illinois.edu/channel/Illinois+Physics+Graduate+Students/179926551>

The screenshot shows the Media Space Illinois website. The header includes the logo and navigation links: Home, Public Affairs, About Illinois, Colleges, Research, Student Life, Campus Units, A-Z Index, Channels, and Help. The main content area features the title "Illinois Physics Graduate Students" and a sub-header "Content here is managed by the Illinois Physics Graduate Office and is open and available to the Illinois Physics ... Read more".

The Prelim: Why You Should Care

The Prelim:

- It's a requirement!
- The prelim paper is essentially a proposal for your thesis projects, so it's a chance to reflect on your project and the time it will take to complete it
- It's a chance to get good feedback from your committee before you get too far into your project
- It's a chance to practice writing an accessible description of your work, which will be very important throughout your career

The Thesis: Why You Should Care

The Thesis:

- It's a requirement!
- You're now the world's expert in your field, and the thesis is your book!
- It is a published document that can and will be read and cited!
- Future members of your group will read it and be grateful for your thoroughness and suggestions
- You may be busy now and in a hurry to finish, but later you'll want to look back proudly on the quality of your thesis and thesis work

The Prelim Exam: What is it?

The preliminary examination is a review of a student's proposal for thesis research, in the form of (<https://physics.illinois.edu/academics/graduates/preliminary-examination>) :



- A paper of no more than 15 pages, *including* figures and bibliography.

The paper should explain the rationale for the project, the problem to be studied, the background needed to understand the problem, the methods to be employed, the expected results, and the expected timescale of the planned research. It is helpful, but not necessary, to have research results prior to taking the exam.

The Prelim Paper

The prelim paper MUST:

- be typed
- have 1.5 spacing between lines
- have 10-point font or larger*
- must not exceed 15 pages in length, including figures and bibliography
- the title page must contain (i) the title of the proposed thesis, (ii) an abstract, (iii) the name of the student and the advisor, and (iv) the approximate date of the exam
- must include a ***brief timeline*** describing how long the proposed projects are expected to take

*this is what the rules say...I would recommend 12-point font if you want your committee to be happy with you!

The Oral Presentation for the Prelim or Thesis

In both the preliminary and final examinations, the student is expected to give a short oral presentation on his or her research area and thesis topic

- The presentation, when practiced without interruptions, should not exceed ~30 minutes for the prelim exam and ~40 minutes for the thesis defense.
- Committee questions and discussion typically lengthen the presentation to between 1.5 and 2 hours.

⇒ Technically, the oral presentation is NOT restricted solely to the details of the candidate's prelim paper or thesis: topics *can in principle* cover areas of physics that the committee feels are relevant to the proposed thesis work. *In practice*, the questions asked *tend* to stay pretty close to the thesis subject.

The Prelim Exam: **When Should You Take It?**

(1). You must have passed the qual

(2). Ideally, you should* have taken *both* “breadth courses”

*But don't delay taking your prelim if you haven't done this

(3). You must have been involved in Phys 597 research with an advisor, and have their approval

(4). You are expected to take your prelim by the end of the fourth semester of research with a particular advisor.*



New Graduate College Policy:

Students enrolling starting in 2020 will be put on academic probation by the end of the first year (4th year if you enrolled with an MS degree) if they don't take their prelim by the end of the fourth semester of research with a particular advisor.*

Delayed because of COVID-19

The Thesis Defense

The thesis defense is a summary of the student's thesis research, including:



- The thesis (<https://physics.illinois.edu/academics/graduates/thesis>)

The content of the thesis is approved by your adviser and the thesis defense committee, but the Grad College controls the format of the thesis

(<https://physics.illinois.edu/academics/graduates/thesis-templates/>).

- A 30-40 minute oral presentation (*without questions*)
Committee questions and the ensuing discussions usually comprise the main body of the 1.5 – 2 hour exam.
- Also: depositing your thesis
The final requirement needed for the PhD degree

The Final Exam: **When Should You Take It?**

When your thesis is done, but before your job starts!

⇒ **Campus rule:** a doctoral candidate is expected to complete all degree requirements **within seven years** of first registering as a degree-seeking student in the graduate degree program

New Graduate College Policy:

Starting in Fall 2020, students who have exceeded the five-year degree requirement will be placed on academic probation for one year or on an approved time extension for one year during the 2019-2020 academic year. **Delayed because of COVID-19** students will be placed on academic probation in Fall 2020 if you do not complete your degree.

⇒ If **more than five years elapse** between a doctoral student's preliminary and final examinations, the student is required to pass a **second** preliminary examination.

⇒ It is expected that the doctoral dissertation will be **deposited within one year** of the final examination.

The Final Exam: **When** Should You Take It?

When your thesis is done, but before your job starts!*

Timing issues you'll have to worry about:

- ⇒ How long will it take you to write your thesis?
Probably longer than you think, ~3-6 months
- ⇒ How long will it take you to find a job?
- ⇒ How soon will your employer want you to start work?
- ⇒ When will your advisor stop supporting you?
- ⇒ In which term do you want/need to graduate?
(See below for key dates)
- ⇒ Will you be supported during the semester you defend?
- ⇒ When will your committee be available?
- ⇒ ***International students:*** When will your OPT start?

*This can be trickier than it sounds!

The Final Exam: **Funding Issues**

Funding can be an issue during your final (thesis defense) term:

⇒ Your advisor might not want to support you on an RA during your final semester (e.g., you won't be around all semester because of a job)

⇒ You might not be eligible to TA during your final semester (e.g., you won't be around all semester because of a job)

⇒ But, you have to be registered during the semester you defend, so someone has to cover the tuition for that term

Options:

(1). Consider asking your employer if you can complete the semester

(2). Consider registering for 0 credit hours* during your final term so you can minimize any tuition bill, which you may have to pay!

(3). New College of Engineering Stand-Alone-Waiver policy

(4). Come talk with me so we can discuss your options!

*Be aware of the consequences of doing this

The Prelim and Final Exams: *New(ish) Rules*

- (1). You must be a full-time registered student for the academic term in which the *preliminary* and *final* exams occur. Particularly important during the summer term!
- (2). The preliminary/final exam committee chair must be a member of the [Graduate College](#).
- (3). The committee chair, student, and at least one additional voting member of the committee must participate for the entire duration of all oral components of the prelim and final examinations.
- (4). All voting members of the committee must be present in person or participate via teleconference or other electronic communication during the examination, deliberation and results determination.

Delayed because of COVID-19

The Prelim and Final Exams: *COVID-19 Changes*

Through at least Fall 2021, all prelim and final exams can be taken ***completely remotely*** (i.e., all participants in a separate location) without needing to file a petition.

You can also have an in-person prelim or final exam, but all in-person participants have “Building Access Granted” and must currently wear masks in the building.

Suggested procedures for a remote prelim/thesis defense

Before the prelim/defense:

(1). You set up a Zoom meeting and send the Zoom link to your entire committee ***and*** to anyone else who wants to attend your prelim/defense. This link can be sent anytime before your defense.

The committee won't join your Zoom meeting until they have finished their confidential committee Zoom meeting (see below) and are ready for you to start your thesis defense talk.

The Prelim and Final Exams: *COVID-19 Changes*

(2). The chair of your committee will set up a ***separate*** Zoom meeting involving ***only*** the 4 members of your committee...this "committee meeting" will last only about 5-10 minutes at the beginning of your prelim/defense.

Alternatively: If you are familiar with setting up a breakout room using Zoom, you can put your committee in a breakout room from the main Zoom meeting you will set up for your defense.

Please discuss with your committee chair how you would like to set up the separate committee meeting.

(3). I'll create a Box folder -- to which only your committee members will have access -- with the usual materials for your defense. This will allow the committee to read necessary information and to sign the result forms remotely. Wendy will send to you and your committee a reminder about your defense with a link to the Box folder a few days before your prelim/defense.

The Prelim and Final Exams: *COVID-19 Changes*

During the prelim/defense:

While giving your presentation, we'd recommend:

- the committee and audience turn off their videos to limit the bandwidth usage and help preserve your connectivity with the committee/audience.
- you send your committee a copy of your slides in case you need to turn off your video to go fully audio during your presentation.
- you feel free to kick audience members out of your Zoom meeting if you're having connectivity issues.
- if you plan to record your prelim/defense, ask your committee's permission and notify the audience

The Prelim and Final Exams: *COVID-19 Changes*

After the prelim/defense:

(1). After your presentation, the committee can leave your Zoom meeting and join the original confidential "committee" Zoom meeting by clicking on the Zoom link sent by the committee chair (or you can put the committee in a breakout room again). This will allow the committee to confidentially discuss their decision on your defense.

Once the committee has make their decision, they can either invite you to join their meeting by sending you the link to their zoom meeting or they can rejoin your zoom meeting to announce their decision and discuss any issues with you.

Note that if they join your meeting, any audience member still signed onto your Zoom meeting will also hear their decision and discussion, so you might ask audience members to leave your meeting.

The Prelim/Final Exam: Key *Fall 2021* Dates

August 23, 2021: Starting August 23, 2021 *you will need to be registered for the entire Fall 2021 term.*

November 12, 2021: Last day to take your final exam and add your name to the degree list for a December 2021 graduation. *Note: this is generally not an important deadline for grad students!* **October 29** is last day to add your name to December degree list!

 **November 23, 2021:** If you resign your appointment before November 23, 2021, *you will lose your tuition waiver for Fall 2021.**

December 3, 2021: Last day to deposit your thesis for a December 2021 graduation. *Note: this is generally not an important deadline for grad students!*

January 18, 2022: Starting on January 18, 2022, *you will need to be registered for the entire Spring 2022 term.*

*Unless you resign your appointment and deposit your thesis within 7 day of your resignation.

The Prelim/Final Exam: Key *Fall 2021* Dates

Three relevant dates associated with graduating:

- *Thesis defense date – This is the trickiest to organize and you must be registered when you defend!*
- *Thesis deposit date – This is the date most employers care about, you don't have to be registered*
- *PhD degree conferral date – Employers generally don't care about this date...it's only important if you want to go through convocation ceremonies*

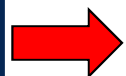
The Prelim/Final Exam: Key *Spring 2022* Dates

January 18, 2022: Starting January 18, 2022, *you will need to be registered for the entire Spring 2022 term.*

April 8, 2022: Last day to take your final exam for a May 2022 graduation. **April 3** is last day to add your name to May degree list!

April 20, 2022: If you resign your appointment before April 20, 2022, *you will lose your tuition waiver for Spring 2022.**

April 22, 2022: Last day to deposit your thesis for a May 2022 graduation.



May 14, 2022: May Commencement (additional deadlines to register for Commencement ceremonies)

May 16, 2022: Starting on May 16, 2022, *you will need to be registered for the entire Summer 2022 term.*

*Unless you resign your appointment and deposit your thesis within 7 days after your resignation.

The Prelim/Final Exam: Key *Summer 2021* Dates

May 16, 2022: Starting May 16, 2022, *you will need to be registered for the entire Summer 2022 term.*

June 27, 2022: If you resign your appointment before June 27, 2022, *you will lose your tuition waiver for Summer 2022.**

July 1, 2022: Last day to take your final exam for an August 2022 graduation.

July 15, 2022: Last day to deposit your thesis for an August 2022 graduation. **July 1** is the last day to add your name to the August Degree list.

August 22, 2022: Starting on August 22, 2022, *you will need to be registered for the entire Fall 2022 term.*

*Unless you resign your appointment and deposit your thesis within 7 days *after* your resignation.

The Final Exam: Possible Outcomes

Possible outcomes of the final exam:

Considering all aspects of the student's performance (written paper, oral presentation, coursework), the committee will make one of **three** possible decisions:

1. Pass with no required revisions of the thesis;*
2. Pass pending required revisions of the thesis;
3. Fail. A second opportunity to take the examination may be given, but is not required.

*There are generally some minor (~2-3 days worth) revisions of the thesis required even in this case. Rarely, the revisions can be more extensive (a few months).

The Prelim Exam: Possible Outcomes

Possible outcomes of the prelim exam:

Considering all aspects of the student's performance (written paper, oral presentation, coursework), the committee will make one of **three** possible decisions:

1. The student has passed the examination and is admitted to Ph.D. candidacy;
2. The student has failed the examination and will not be admitted to Ph.D. candidacy;
3. The student has not passed the examination, but it is recommended that he/she have the opportunity to remove deficiencies in areas of study, or to improve his or her performance in research, and apply for re-examination in the following semester.

Requirements After the Prelim Exam

After the prelim exam:

- You should start registering for Phys 599 Thesis Research instead of Phys 597
- Post-prelim exam students are now required to meet with the chair* of their prelim committee *at least* once per year

*Chairs will be sent student self-evaluations and will be told to expect to be contacted by the student. You can also meet with another member of your prelim committee.

Choosing a Prelim/Final Committee



Choosing a Prelim/Final Committee

Prelim/final committees must have at least four voting members:

- At least three (including the chair) must be members of the Graduate Faculty (most UIUC faculty satisfy this)
- At least two must be tenured faculty at UIUC
- Preferably, a majority of members must be from the Physics Dept. (not a Grad College requirement)
- Can petition for non-Grad Faculty members to be added as voting members of committee

In the Dept. of Physics, the committee usually consists of:

- The thesis adviser
- A theorist in the student's research area
- An experimentalist in the student's research area
- A fourth member outside the student's research area

The chair of the committee is ***not*** the research advisor, but is usually a member in the same research area as the student.

Choosing a Prelim/Final Committee

To select your committee:

First, consult with your advisor and generate a list of suitable committee members (*following the guidelines given in previous slide*)

If you have questions or want advice, meet with the Associate Head for Grad Programs (me!) to discuss plans for finalizing your committee

⇒ In scheduling the preliminary examination, it is your responsibility to contact each one of the committee members and to arrange a firm date and time for the examination. (*Learn about and use Doodle Polls!*)

Once you have settled on a committee and a date and time for the exam, **give the schedule and committee list to us in the Physics Graduate Office (227 Loomis) at least three weeks before the exam.** We will schedule the exam room, submit needed paperwork to the Grad College, and send reminders to the committee.

Advice on Choosing a Committee

(1). Schedule early in the semester!

Get on your committee members' schedules early! Don't put off scheduling the examination until the end of a semester because faculty schedules get crowded.

(2). Don't expect, without considerable planning, to take the examination when classes are not in session or during the summer

It is possible – but challenging – to schedule during these times, and it is your responsibility to resolve time conflicts that may arise after the exam is initially scheduled.

(3). Schedule your advisor and the chair of your committee first

Schedule the other member in your specialty next, then the non-specialist member of your committee last

Advice on Choosing a Committee (cont.)

- (4). Ideally, your final committee should be the same as your prelim committee

Let me know if you need/want to make changes, and I'll discuss your options with you

- (5). If you want a committee member who's not in the Grad College, let us know early, as there is extra paperwork involved

- (6). Make sure your chair and another member (and you!) will be in town for the prelim/final.

Grad College requires these committee members to be present for the prelim/final.

- (7). Beware scheduling your thesis defense too close to a change in semesters!

Delayed because of COVID-19

Arrangements for the Oral Presentation

The Grad Physics Office will make sure a room is reserved for the Prelim/Final Examinations

- As soon as the prelim paper is deposited!

The student is responsible for making sure the necessary audio/visual equipment for his/her presentation is available on the date of the exam

- Most conference rooms have overhead projectors kept in them, but if you need to reserve a portable projector, staff members in Room 213/233 Loomis and Room 38 Loomis can assist with reserving any required audio/visual equipment.

Distributing Your Prelim or Thesis

At least 2 weeks before the proposed date of the examination, you must provide copies of the prelim paper or thesis to each member of your committee

- A. If you distribute your prelim/thesis electronically, make sure each committee member receives it!
- B. Make sure your advisor has approved your prelim/thesis before distributing it to your committee!
- C. Do not make significant changes to the prelim/thesis after distributing it without notifying your committee
- D. I'd suggest circulating an electronic copy of the prelim/thesis, and ask the committee members if they want a hard copy (ask them to verify receipt of copy!)

Addendum: **When Should You Take the Prelim?**

The “rules” state that if a graduate student does **not** take the prelim exam by the end of the fourth semester with his or her research advisor, the department will not renew the student’s RA or TA appointment in the following semester.*



*There is a long list of exceptions to this rule...

⇒ The appointment will be restarted (without back pay) after the tardy exam has been taken (pass or fail). Graduate student status is not affected by this action.

Exceptions to “4th semester in research” rule

- (i) Students signed up for independent research (Physics 597) in their 1st year must do so before the end of their 3rd year of graduate study
- (ii) If the advisor is on leave when a student’s prelim deadline is reached, the prelim paper must still be submitted by the end of the 4th semester of research; the oral exam will be administered as soon as the faculty member returns
- ⇒ (iii) If a student’s advisor feels that there is a valid reason for delay of a prelim, then the advisor may submit a formal petition to the Associate Head (me!) -- before the second week of the student’s 4th research semester – to extend the prelim deadline

Exceptions to “4th semester in research” rule

- (iv) Illness or other extenuating circumstances can be justification for delaying the prelim, but these situations must be brought to the attention of the Physics Grad Office as soon as possible
- (v) If a student switches advisors, the “Prelim clock” will begin again in the first semester the student takes Phys 597 with the new advisor
- (vi) If the Prelim Examination Committee finds a deficiency during the Prelim exam, the Department will, with the advisor’s approval, continue the student’s appointment while the issues are being resolved, usually within a semester

Exceptions to “4th semester in research” rule

(vi) If an unavoidable scheduling conflict exists with the prelim committee, the Physics Graduate Office must be notified early in the fourth semester of research, and the prelim must be held at the earliest available date.

⇒ In this case, the prelim paper must still be submitted to the committee, the Physics Grad Office and the Physics Library before the end of the fourth semester of research.