

Physics Ph.D. Program

Information, Policies & Procedures

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This document reflects current information, policies, and procedures for Ph.D. students. The document is separated into the following sections: Policies of the Graduate School, Policies of the Physics Department, Doctoral Degree Requirements, Physics Department – Ph.D. Timeline, Program Sequence, Satisfactory Progress, Financial Support, Advising and Mentoring, and Terminal Masters' Degree options.

Policies of the Graduate School

The information in this section is excerpted from the Graduate School's web page, [Instructions, Policies, and Procedures for Graduate Students](#), which contains a comprehensive listing of all Graduate School policies as well as additional information on the topics listed below.

Enrollment Requirement

The enrollment requirement for the master's degree is 36 credits, 30 of which must be taken at the University of Washington.

For the doctoral degree, the enrollment requirement is 90 credits, 60 of which must be taken at the University of Washington. With the approval of the degree-granting unit, an appropriate master's degree from an accredited institution may substitute for 30 credits of enrollment.

Only courses numbered 400, 500, 600, 700, and 800 can be applied to enrollment or course credit in the major field for advanced degrees.

Transfer Credits

Approved transfer credits are applied toward total credit count for the master's degree only. (Transfer credits are not applicable toward a doctoral degree.) The 18 quarter credits of numerically graded course work, and 18 quarter credits of 500-level-and-above course work may not be reduced by transfer credit. See also [Doctoral Degree Requirements](#).

On-Leave Status and Continuous Enrollment

To maintain graduate status, a student must be enrolled on a full-time, part-time, or official On-Leave basis from the time of first enrollment in the Graduate School until completion of all requirements for the graduate degree. Failure to maintain continuous enrollment constitutes evidence that the student has resigned from the Graduate School.

A student's petition for On-Leave status must be approved by the departmental graduate program coordinator and submitted to the Registration Office (225 Schmitz Hall) no later than the fifth day of the quarter.

Full-time Enrollment

Full-time quarterly enrollment for graduate students is **10 credits**. Students who accept a Teaching or Research Assistant position during autumn, winter, or spring quarters must enroll full-time.

Summer Quarter Enrollment

Students are not required to enroll for summer quarter to maintain continuous enrollment; however,

students who accept a Teaching or Research Assistant position for summer quarter should enroll for **2 credits** to maintain full-time student status for Summer Quarter.

Graduate Courses

Graduate courses are intended for, and ordinarily restricted to, either students enrolled in the Graduate School or graduate non-matriculated students, and are given numbers from 500 through 800. Some courses at the 300 and 400 levels are open both to graduates and to upper-division undergraduates. Such courses, when acceptable to the supervisory committee and the Graduate School, may be part of the graduate program. [Graduate School Memorandum No. 36](#) offers additional information on graduate courses.

Grading System for Graduate Students

In reporting grades for graduate students, units that offer graduate degrees use the system described herein. Grades are entered as numbers, the possible values being 4.0, 3.9, . . . and decreasing by one-tenth until 1.7 is reached. Grades below 1.7 are recorded as 0.0 by the Registrar and no credit is earned. **A minimum of 2.7 is required in each course that is counted toward a graduate degree.** A minimum GPA of 3.00 is required for graduation.

Withdrawal

It is the student's responsibility to withdraw if he or she is unable to attend for the quarter. Students may withdraw in person or write to the Registration Office, 225 Schmitz Hall, Box 355850, University of Washington, Seattle, Washington, 98195-5850. Withdrawals by mail are effective on the date of the post-mark. The [University of Washington Time Schedule](#) offers more information on withdrawal policies.

Repeating Courses

Graduate students may repeat any course. Both the first and second grades will be included in the cumulative GPA. Subsequent grades will not be included, but will appear on the permanent record. The number of credits earned in the course will apply toward degree requirements only once.

Language Competence Requirements and Examinations

It is assumed that students from English-speaking countries who are admitted to the Graduate School are competent in the English language; students from non-English-speaking countries must demonstrate a satisfactory command of English, both for admission and for appointment as teaching assistants. Refer to [Graduate School Memorandum No. 8](#) entitled, [English Language Competence for Admission to the Graduate School](#).

Low Scholarship/Unsatisfactory Progress

Admission to the Graduate School allows students to continue graduate study and research at the University of Washington only as long as they maintain satisfactory performance and progress toward completion of their graduate degree program.

Students whose cumulative or quarterly GPA falls below a 3.0 must be reviewed quarterly and be provided with an explanation of performance expectations and a timetable for correction of deficiencies. Doctoral program students are to be reviewed by their doctoral supervisory committee. Pre- and postmaster students are to be reviewed by supervisory committees, if such committees have been appointed, or by the graduate faculty members who have been designated to oversee such students' programs.

In evaluating the student's performance and progress, all of the following should be reviewed: (1) Grade reports: cumulative and quarterly GPA's computed on those courses taken while the student is enrolled in the University of Washington Graduate School. Computation is based only on courses numbered 400-599; courses graded I, S/NS, and CR/NC are excluded, as are the 600-800 series. (2) Performance during informal course work and seminars. (3) Research capability,

progress, and performance. (4) Any other information relevant to graduate program academic requirements.

A determination of satisfactory performance and progress may be made upon review of the factors indicated above and consideration of the student's progress relative to other students (part-time/full-time) in the program or to an individually negotiated schedule.

Final Quarter Registration

A student must maintain registration as a full- or part-time student at the University for the quarter the master's degree, the candidate certificate, or doctoral degree is conferred.

Policies of the Physics Department

This section contains policies specific to the Physics Department, which fall outside of the general categories listed in the rest of this document.

Teaching

In recognition of the importance of teaching experience in the education of a physicist, the Physics Department requires such experience of all prospective candidates for the Ph.D. degree. Most students serve as teaching assistants at some point in their graduate career to fulfill the teaching requirement; however, students may obtain a waiver of this requirement if they have had previous relevant teaching experience. Students who want to apply for a waiver should see the graduate program coordinator.

Complaint Policy

The Physics Department is committed to ensuring that students have a positive graduate school experience. To this end, the department makes every effort to prevent and respond to problems. In July 2003, the Physics Department adopted a [Policy and Procedure for Reporting and Handling Graduate Student Complaints](#) Policy and Procedure for Reporting and Handling Graduate Student Complaints in response to students' request for a clear policy which outlined a less formal environment where students could speak openly and easily about their concerns. The policy also lists additional resources.

Doctoral Degree Requirements

The information in this section is excerpted from the Graduate School's web page, [Doctoral Degree Requirements](#), which contains more detailed information about requirements.

A Quick Reference List

In order to qualify for the doctoral degree, it is the responsibility of the student to meet the following Graduate School minimum requirements. **A student must satisfy the requirements that are in force at the time the degree is to be awarded.**

- A minimum of 90 credits must be completed (a master's degree from the UW or another institution may be used as a substitute for 30 credits of enrollment).
- A minimum of 60 credits must be completed at the University of Washington.

- At least 18 credits of UW course work at the 500 level and above must be completed prior to the General Examination.
- At least 18 numerically graded UW credits of approved 400 and all 500 level courses must be completed prior to the General Examination.
- Completion of 60 credits prior to scheduling the General Examination (a master's degree from the UW or another institution may be used as a substitute for 30 of these 60 credits).
- A minimum of 27 dissertation credits over a period of at least three quarters must be completed. With the exception of summer, students are limited to a maximum of 10 dissertation credits (800) per quarter.
- A minimum cumulative GPA of 3.00 must be maintained.
- The General Examination must be successfully completed.
- The Final Examination must be successfully completed.
- A dissertation accepted by the Graduate School.
- Registration maintained as a full- or part-time graduate student at the University for the quarter in which the examinations are completed AND the quarter the degree is conferred.
- Completion of all work for the doctoral degree within ten years.

Requirements That May Impact Progress

The following doctoral degree requirements may impact progress.

- If a student enters the UW with a Master's degree or equivalent from elsewhere, he or she must satisfy the requirement of taking 18 graded credits in courses at the 500 level or approved 400 level courses at the University of Washington before a General Examination is scheduled.
- A Candidate must register for a minimum of 27 credits of Physics 800 over a period of at least 3 quarters in which at least one quarter comes after the student passes the General Examination. If a student schedules his or her General Examination late, he or she may be deficient in Physics 800 credits.

Physics Department - Ph.D. Timeline

The sample timelines below should help students identify the steps involved in completing their Ph.D. and help them measure their progress in the Ph.D. Program. Students should be able to identify with one of three groups based on their undergraduate preparation.

Typical Entering Ph.D. Students

Students who took the following courses in their undergraduate education: Quantum Mechanics, Electricity and Magnetism, Classical Mechanics/Statistical Mechanics, and Mathematical Physics or a senior-level survey course.

Entering Ph.D. Students Requiring Additional Preparation

Students who were unable to take the following courses in their undergraduate education: Quantum Mechanics, Electricity and Magnetism, Classical Mechanics, and Mathematical Physics or a senior-level survey course. It is recommended that these students take junior- or senior-level physics courses before taking the first year, graduate-level courses.

Entering Ph.D. Students with Advanced Standing

Students who already have a Master's degree in Physics or who have transferred from another university after completing one or more years in a Physics Ph.D. program.

	Typical Entering Ph.D. Student	Entering Ph.D. Student Requiring Additional Preparation	Entering Ph.D. Students with Additional Standing
<i>Take Required First Year Courses</i>	1 st year	1 st and 2 nd year	Some or all first year courses may be waived by the graduate program coordinator.
<i>Register for Physics 600, Independent Study/Research</i>	Beginning spring quarter of 1 st year.		Beginning autumn quarter of 1 st year.
<i>Take Qualifying Examination</i>	September nd before 2 nd year.	March of 2 nd year or September before 3 rd year.	March of 1 st year.
<i>Take Other Required Courses</i>	2 nd year	2 nd and 3 rd year.	1 st year
<i>Find a Research Advisor</i>	2 nd year or 3 rd year	3 rd year	2 nd year
<i>Establish a Doctoral Supervisory Committee</i>	Within not more than 2 years, but preferably within 1 year of passing the Qualifying Exam.		
<i>Take the General Examination</i>	During 3 rd or 4 th year.		During 2 nd or 3 rd year.
<i>Register for Physics 800, Doctoral Dissertation</i>	The first quarter after passing the General Exam.		
<i>Establish a Reading Committee</i>	The quarter before the Final Exam.		

Take the Final
Examination

5th or 6th year

4th or 5th year

Program Sequence

The information in this section is an outline of the program sequence. Students are expected to follow this sequence in a timely manner to make satisfactory progress.

- Take Required First Year Courses
- Register for Physics 600, Independent Study/Research
- Take the Qualifying Examination
- Take Other Required Courses
- Find a Research Advisor
- Establish a Supervisory Committee
- Take the General Examination
- Register for Physics 800, Doctoral Dissertation
- Establish a Reading Committee
- Take the Final Examination

Take Required First Year Courses

The Physics Department requires that a student complete certain courses, or have attained an equivalent level of understanding here or elsewhere. Students should first talk with their faculty advisor about whether a waiver for a course is appropriate. The faculty advisor should make a recommendation to the graduate program coordinator who decides whether to grant the waiver. The graduate program coordinator may consult with the instructor of the course in question if necessary.

During the first year of employment as a teaching assistant, students must take Physics 501, 502, and 503, (Tutorials in Teaching Physics,) which are counted as part of the teaching assignment. The Tutorials in Teaching Physics courses may be deferred if a student enters with inadequate spoken English.

Required First Year Courses

Unless waived by the graduate program coordinator, students must register for the following courses during their first year of study.

Autumn Quarter

Course	Title	Credits
Phys 505	Mechanics	3
Phys 513	Electromagnetism and Relativity	4
Phys 517	Quantum Mechanics	4
Phys 501	Tutorials in Teaching Physics (For students holding or expecting to hold a TA)	1

Winter Quarter

Course	Title	Credits
Phys 524	Thermodynamics and Stat. Mechanics	4
Phys 514	Electromagnetism and Relativity	3
Phys 518	Quantum Mechanics	4
Phys 528	Current Problems in Physics	1
Phys 502	Tutorials in Teaching Physics (For students holding or expecting to hold a TA)	1

Spring Quarter

Course	Title	Credits
Phys 511	Topics in Contemporary Physics	3
Phys 515	Electromagnetism and Relativity	4
Phys	Quantum Mechanics	4

519		
Phys 503	Tutorials in Teaching Physics (For students holding or expecting to hold a TA)	1

Register for Physics 600, Independent Study/Research

The department strongly recommends that all first year students begin the process of exploring research opportunities in the department or with adjunct faculty in other departments during spring quarter. Students may register for one credit of Physics 600 and attend research group meetings every week or every other week with no obligation to continue the relationship beyond spring quarter. Students see a selection of research options in Physics 528, which is a class students are required to take in winter quarter.

The department recommends that first year students continue to investigate different research groups by registering for Physics 600 during summer quarter. During the second year of graduate study and in subsequent years, students will register for an increasing number of Physics 600 credits. Students may not register for more than 10 credits of Physics 600 per quarter. Students holding full or partial research assistantships must register for at least one credit of Physics 600 with the faculty member supervising their research.

Take the Qualifying Examination

The qualifying examination serves to ascertain that a Ph.D. candidate demonstrates competency across a broad spectrum of core subjects. Furthermore, the preparation process for taking the exam is a learning and integration opportunity that allows the student to develop a more global understanding of physics, in an independent setting (meaning outside the normal course setting that students have experienced up to this point).

Students are expected to take the qualifying examination just before the start of their second year of graduate study, but may take it earlier or later with the approval of the graduate program coordinator. Students who have not passed the exam by the beginning of spring quarter of their third year will be placed on probation in the absence of extenuating circumstances.

The qualifying examination is given twice a year, a week before autumn quarter begins and on the first two days of the spring quarter. See [current schedule](#) .

The qualifying examination is composed of five sections: classical mechanics, electricity and magnetism, quantum mechanics, basic physics, and statistical and thermal physics.

Students can find complete information in [Qualifying Exam Information](#) . This document contains information such as the current schedule, registration, letters of recommendations, preparation, exam content, exam grading, qualification, and the appeals process.

After students pass the qualifying exam, they are eligible to receive their Master's degree provided that course credit and grade point average requirements have been satisfied. Students should apply for their non-thesis Master's degree on the Graduate School's [Master's Degree Application](#) web page.

Take Other Required Courses

Students who took the qualifying examination for the first time in September 2004 or later must also pass at least two elective courses in physics areas outside the area of their thesis research. (In special circumstances, the graduate program coordinator can waive these required courses.) It is anticipated that most students will complete the required courses before taking their general examination. However, holding a general examination prior to completing these courses is permissible provided the student has a plan approved by the graduate program coordinator, specifying which courses will be taken, and when. This policy is aimed at assuring some breadth of knowledge of modern physics at a more advanced level.

The following courses are currently taught in a non-specialized manner ensuring accessibility to all graduate students. (This suggested course list may be reviewed and updated periodically by the graduate committee.)

Advanced Course List

Course	Title
Phys 506	Numerical Methods
Phys 550	Atomic Physics
Phys 554	Nuclear Astrophysics
Phys 555	Cosmology, Particle Astrophysics
Phys 557	High Energy Physics
Phys 560	Nuclear Physics
Phys 564	General Relativity
Phys 567	Solid State Physics
Or other upper level graduate courses approved by the graduate program coordinator.	

Find a Research Advisor

Research advisors help students select specialized courses, in addition to the required courses, appropriate to their interests. A student should find a research advisor within one year of passing the qualifying examination and should begin independent research in that faculty member's field of study under his or her supervision. When a student finds a research advisor, he or she must inform the graduate program assistant.

Students who have begun independent research with a faculty member are expected to attend the department's colloquium and seminars in their fields of specialization on a regular basis. Some study in a field of physics outside of a student's research specialty is required. Furthermore, students may wish to explore some study in fields such as mathematics, engineering, or other natural sciences.

Establish a Doctoral Supervisory Committee

A doctoral supervisory committee guides and assists a student in working toward a doctoral degree and is expected to evaluate the student's performance throughout the program. All members of the supervisory committee are responsible to the student and to their graduate faculty colleagues for the quality of the degree being sought. Please see the roles and responsibilities of voting members, chair, graduate school representative (GSR) and student in [Doctoral Supervisory Committee Roles and Responsibilities](#) .

Report on Progress

The doctoral supervisory committee is responsible for monitoring a student's progress. The Physics Department policy concerning the need to meet with committee members is as follows.

- Students enrolled for five or more years are required to meet annually with their research advisor and a quorum (at least two voting members) of their doctoral supervisory committee. The GSR is not expected to attend the meeting. Students are then *required to submit a report* signed by committee members to the department chair and the graduate program coordinator. The Annual Activities Report can be used as this report on progress. Students who fail to meet with their committee by the end of their fifth year and subsequent years may be placed on probation, final probation, and finally dropped from the program.
- Students enrolled for fewer than five years are required to meet annually with their research advisor and a quorum (at least two voting members) of their doctoral supervisory committee. The GSR is not expected to attend the meeting. Students are *not required to submit a report*, but it is strongly recommended that they combine the requirement for an annual meeting with their Annual Activities Report.
- The General Examination counts as an annual meeting of the doctoral supervisory committee.

Normal Composition of the Doctoral Supervisory Committee

1. [Graduate School Memorandum No. 13, Supervisory Committee for Graduate Students](#) contains details regarding the composition of a doctoral supervisory committee; however, the Physics Department has adopted its own policy regarding the normal composition of the committee, which can be found on the [Supervisory Committee Form](#) . The standard composition of a committee includes:

- a. The Committee Chair, typically your research advisor
- b. Another faculty member in the same research field
- c. A theorist/experimentalist from the same area if you are doing experimental/theory research
- d. A faculty member from another area of physics (can be a theorist or experimentalist)
- e. One member, other than the Chair, should be designated as a Mentor. This can be one of the members listed above or an additional member of the committee.
- f. The GSR (Graduate School Representative), who cannot have a faculty appointment in the Physics Department. **It is your responsibility to find a GSR for your committee.** The process of finding a GSR can take a few hours or a few weeks, and often depends on how many contacts your Committee Chair or other committee members have with faculty from other departments. If you and your Committee Chair are having difficulty finding a GSR, please come speak with the graduate program assistant.

g. At least two of these committee members listed above should be regular Physics department faculty (i.e. not adjuncts or affiliates)

Steps in Establishing a Doctoral Supervisory Committee

1. Soon after you find a research advisor, you should have a discussion with him or her about which faculty should be on your doctoral supervisory committee. Then, you should ask the faculty if they would be willing to serve on your committee. In the case of the Mentor, you should make use of the resources and suggestions on the [Advising and Mentoring Program](#) web page.

2. Once you have obtained the consent of the faculty to serve on your committee, you should complete the online [Supervisory Committee Form](#) and submit it electronically to the graduate program assistant (grad@phys.washington.edu).

3. The graduate program assistant (1) performs a degree check to make sure that you have taken all required courses (2) asks the graduate program coordinator to approve the committee, and (3) enters the information from your supervisory committee Form into MyGradProgram (MGP), the Graduate School's web-based administrative system. Once this has been processed, you, your committee members, and the graduate program assistant will receive an email from The Graduate School confirming that your doctoral supervisory committee has been officially established.

***Important Note:** The doctoral supervisory committee must be established with the Graduate School **at least four months** before the General Examination is scheduled.

Take the General Examination

The usual form of a General Examination in the Physics Department is a public presentation of research already done and research proposed, followed by an examination with only members of the graduate faculty. A student should schedule the General Examination at the earliest time agreeable with the supervisory committee.

Students can find complete information in [General Exam Information](#). This document contains information such as the general exam facts, how to schedule a general exam, and other general exam details.

Register for Physics 800, Doctoral Dissertation Students should register for Phys 800 after passing the General Examination. A minimum of 27 dissertation credits over a period of at least three quarters must be completed. With the exception of summer, students are limited to a maximum of 10 dissertation credits (Physics 800) per quarter.

Establish a Reading Committee

The reading committee consists of **three members** of the doctoral supervisory committee. The research advisor acts as chairperson. The Graduate School Representative cannot be a reading committee member, but must attend the exam.

Steps in Establishing a Reading Committee

1. Once you have obtained the consent of the faculty to serve on your reading committee, you

should complete the online [Reading Committee Form](#) and submit it electronically to the graduate program assistant (grad@phys.washington.edu).

2. The graduate program assistant (1) asks the graduate program coordinator to approve the committee, and (2) enters the information from your Reading Committee Form into MyGradProgram (MGP), the Graduate School's web-based administrative system.

3. Immediately after the graduate program assistant enters the information into MGP, you, your reading committee members, and the graduate program assistant will receive an email from The Graduate School confirming that your reading committee has been officially established.

Important Note: The reading committee must be established with the Graduate School **before** the Final Examination is scheduled.

Take the Final Examination

The final examination is an oral presentation and defense of a student's dissertation.

Students can find complete information in [Final Exam Information](#). This document contains information such as the final exam facts, how to schedule a final exam, and other final exam details.

Satisfactory Progress

Graduate School Rules

The Graduate School requires that students complete all work for the doctoral degree within ten years of admission to the Graduate School. This includes quarters spent On-Leave or out of status as well as applicable work from the master's degree from the University of Washington or a master's degree from another institution, if used to substitute for 30 credits of enrollment. The Graduate School also tracks low scholarship—quarterly and cumulative grade point averages that fall below 3.0—and sends low scholarship reports to departments each quarter. In turn, the department makes recommendations to the Graduate School.

Aside from these Graduate School requirements, it is the responsibility of the student, department (chair, graduate program coordinator, academic advisor, and graduate program assistant) and the supervisory committee to make sure that a student is making satisfactory academic progress.

Physics Department Guidelines

Students can refer to the Physics Department – Ph.D. Timeline and Program Sequence sections to help them determine whether they are making satisfactory progress. Please note that students must be making satisfactory progress to continue their Teaching and/or Research Assistantships. In summary, these are the department guidelines for student progress:

1. For the last few years, the median time from entry into the graduate program until Ph.D. has been in the range of 5.5 – 6 years. The department strongly urges students and advisors to aim for 4-6 years.

2. The Qualifying Examination will usually be taken the summer prior to the second year.

3. The Supervisory Committee will usually be formed within one year of passing the Qualifying Examination and should be formed within two years of passing the Qualifying Examination. During the period before formation of the Committee, students are encouraged to meet with several faculty members and to enroll in Physics 600 in areas of potential research interest.

4. The General Examination will usually be taken during the third or fourth year. Students should register for Physics 800 after passing the General Examination.

5. Entering students who do not have the normal background are encouraged to take an alternate first year program containing undergraduate upper division courses in order to attain the proficiency needed for graduate courses. Such a program is one cause of modification of the typical progression.

Annual Activities Report

To help students maintain satisfactory progress and to encourage advisor-student contact, students are required, every winter quarter, to complete an annual activities report. This report includes comments from their advisor or research advisor, as well as a proposed time schedule for finishing the degree. The graduate program coordinator will review the reports and meet with students and/or their advisors when progress appears slow. If progress is not made and informal approaches have been unsuccessful, formal action may be taken. In the case of a formal report of lack of satisfactory progress, the graduate program coordinator sends a report to The Graduate School with a recommendation for action at three different levels. The lowest level is "Warn," which has no long-term consequences. The second level is "Probation," which usually comes with a schedule for completion of various requirements. The third level, which can come only after "Probation," is "Final Probation," which will lead to termination of enrollment if the required deadline is not met by the end of the quarter.

Low Scholarship/Unsatisfactory Progress

Graduate students are required to maintain a 3.0 grade point average in 500-level and approved 400-level courses. When the cumulative grade point average for the quarter falls below 3.0, The Graduate School sends a report to the graduate program coordinator who recommends an action to the Graduate School. The possible recommendations are "No Action," "Warn," "Probation," and "Final Probation." If a student is placed on "Probation," a definite timetable for remedying the situation is required. Only "Final Probation" can lead directly to termination from the program.

Financial Support

Academic Student Employees (ASEs)

Most full-time graduate students in Physics are supported by teaching and/or research appointments (TAs/RAs). There are also a number of scholarships, fellowships, and awards that provide partial financial support. If you have accepted a TA or RA position, you are classified as an "Academic Student Employee" (ASE). These positions all provide a stipend, a tuition waver, and health insurance benefits. All first-year students are supported by appointments or fellowships (usually together with a department one-time supplement). Second-year students making satisfactory progress are essentially

guaranteed an assistantship for the academic year. Beyond the second year, it is the Department's aim to provide support for all students making satisfactory progress. While this support cannot be guaranteed, since it is partly based on research grants, such support has been successfully provided for many years. The support will typically be in the form of an RA, or a combination RA/TA, beyond the second year. It is important to note, however, that it is the responsibility of the student to find a research advisor and research support.

RAs are employed by the Department to assist faculty with specified research projects, and funded through the research grants held by members of the faculty. RAs are generally expected to be full-time students and to be working on their own research.

TAs are employed by the University to assist faculty in their teaching activities. TAs teach undergraduate labs, grade homework and exams, design learning exercises, and meet with students during office hours. During their first year as a Teaching Assistant, students are required to enroll in a training course for Teaching Assistants in Physics.

For those students who are supported by TAs, it is important to note that the number of TA positions is more limited during the summer quarter than during the academic year. Thus it is important for students with academic-year TAs to look for possible RA opportunities for the summer. This applies particularly to first-year students, for whom a summer RA also presents a good opportunity to learn about a research group. In practice, for many years the total number of positions (RAs and TAs) has been sufficient to provide summer support for those students making satisfactory progress. Students with ongoing RA support are usually supported through the summer quarter by their advisors' grants.

Students who accept TA or RA positions at the University are required to register as full-time graduate students (a minimum of 10 credits in the academic year, and a minimum of 2 credits in the summer quarter) and serve 20 hours per week.

ASE appointments are governed by a contract between the UW and the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW), AFL-CIO and its Local Union 4121 (UAW). If you want review the UW/UAW Contract, please see the [UW Labor Relations Web site](#). You will be contacted by a union representative with information about membership and fees.

Salaries and Promotions

Students entering the Physics PhD program who are hired as ASE employees are paid at the "Assistant" level (Teaching Assistant or Research Assistant). After passing the Qualifying Exam, students will receive a promotion to either a Predoctoral Teaching Associate I or Predoctoral Research Associate I (depending on whether you are currently a TA or RA) starting the next pay period after the date of the Qualifying Exam. Similarly after passing the General Exam, you will receive a promotion to either a Predoctoral Teaching Associate II or Predoctoral Research Associate II (depending on whether you are currently a TA or RA) starting the next pay period after the date of the General Exam.

The departmental pay rates for RAs are higher than for TAs. (For current ASE rates, see <http://www.grad.washington.edu/fellow/salaryschedule.htm>). This is in part to provide an incentive to find a research group and make progress towards a degree. However, circumstances do not always allow for all students who want an RA to be appointed to one (not all students are prepared to assume an RA position in their second year, or a research grant's funding is not sufficient, etc.). Thus, the department currently provides several financial bonuses to help equalize pay as best as possible:

- **TA Bonuses:** Second-year students serving as TAs have in recent years received a small supplement to their TA salary to bring the level closer to that of the RA. The bonus is awarded in a lump sum during the first pay period of each quarter that the TA is employed.
- **TA-RA Supplement:** For students serving as a combination TA-RA, the research group funding the RA portion will usually pay a supplement so that the student earns the equivalent of a full RA position.
- **Summer TA rate:** Because Summer quarters courses run one month shorter than during the academic year (and thus TAs are employed one month less), the salary for students serving as TAs during summer quarter is increased by 20%.

Advising and Mentoring

First Year Advising and Mentoring Program

Each first-year student is assigned to a faculty advisor, with whom he or she meets before the beginning of each quarter to discuss classes, Department and University requirements, and general progress. Students must submit proposed class schedules for approval to their faculty advisor each quarter and must meet annually with their faculty advisor to complete their annual activities reports. This "academic advisor" also provides advice on how to make contact with research groups. The academic advisor maintains his or her role until the student is established with a research advisor (who also chairs the student's supervisory committee).

The department also has an evolving mentoring program. First-year students are paired with a student mentor---a second-year or sometimes more advanced student who has volunteered. These peer mentors are in regular contact with the first year students throughout the year and aim to help make the transition to graduate school by sharing their experiences and provide support and advice. There is usually one social "tea" each quarter to which all peer mentors and mentees are invited. In addition, mentors meet individually with their mentees once or twice each quarter during the first year.

For more advanced students, formal mentoring is encouraged by the following department policy. Students forming Supervisory Committees after June 16, 2009 must designate one of the members, other than the Chair, as a Faculty Mentor. For more details, see the [Advising and Mentoring Program](#) web page.

Quarterly Advising Panels

In continuation of the first year advising and mentoring program, the Physics Department hosts the following quarterly advising panels early each quarter. Panelists are advanced students and the panels are moderated by the Physics Graduate Student Council's (PGSC) Student Panel Coordinator.

- Mapping a Graduate Career (Autumn)
- The General Exam (Winter)
- Finding a Research Group (Spring)

- The Qualifying Exam (Summer)

Terminal Master's Degree

Should you decide to leave the Physics PhD program before completing your research and thesis, there are two options that make it possible to obtain a Masters Degree in Physics from the PhD program.

The first option is to take and pass the Qualifying Exam. After students pass the Qualifying Exam, they are eligible to receive their Master's degree provided that the Graduate School's course credit and grade point average requirements have been satisfied. These requirements are as follows:

1. At least 36 credits must be completed

- *1.1 All courses numbered 400-799 that are numerically graded 2.7 and above, or have a grade of Satisfactory or Credit ('S' or 'CR') count toward the 36 credit total. 498 "Special Topics" and 499 are not counted in the 36 credit total.*
- *1.2. Courses graded less than 2.7 do not count towards the 36 credit total.*
- *1.3. At least 18 credits must be in courses numbered 500 and above.*
- *1.4. 18 credits must be numerically graded in department approved 400-level courses accepted as part of the major and in all 500-level courses. This excludes 498 and 499 and transfer credits.*
- *1.5. No more than 6 graduate level quarter credits can be transferred from other academic institutions to count toward the 36 credit total.*
- *1.6. No more than 12 UW Graduate Non-matriculated credits can be applied to the 36 credit total.*
- *1.7. No more than 12 credits derived from any combination of UW Graduate Non-matriculated credits and transfer credits can be applied to the 36 credit total.*
- *1.8. If a student repeats a non-repeatable class, only one set of credits counts toward the 36 credit total.*

2. A minimum cumulative GPA (grade point average) of 3.00 is required for a graduate degree at the University

3. The Master's Degree Request must be filed

- *3.1. To avoid a late fee the Master's Degree Request must be filed before the end of the seventh week in the quarter.*
- *3.2. If the Master's Degree Request is filed during weeks eight and nine it is considered late and the student must pay a late fee.*
- *3.3. If the Master's Degree Request is filed during weeks ten and eleven it is not accepted. The system is closed*
- *3.4. In summer quarter, the Master's Degree Request should be filed during weeks one through six. Week seven is considered late and the student must pay a fee. A request filed in weeks eight and nine is not accepted. The system is closed.*

4. Must complete all degree requirements within six years

- *4.1. The timeframe/clock begins on the first day of the quarter that the Graduate Student uses a course to satisfy degree requirements when he/she is coded as either a Graduate Non-Matriculated student (Department Code with class 6) or as a Graduate Student (Department code with class 8) in the department to which he/she is admitted.*

- 4.2. *UW Graduate Non-matriculated credits used towards the 36 course credit total are counted in the six years.*
- 4.3. *Quarters spent On-Leave and out of status are counted in the six years.*
- 5. *Must maintain registration through the end of the quarter in which the degree is conferred or, if eligible, pay the [Graduate Degree Late Fee](#) within the first 4 weeks of a quarter.*

The second option is to complete a master's level thesis, which will be reviewed by your faculty advisor and the graduate program coordinator. If your work is found to be of sufficient quality AND you have satisfied the Graduate School's course credit and grade point average requirements (see above), the Physics Department will grant a terminal Master's Degree.

Students may apply for non-thesis Master's degree on the Graduate School's [Master's Degree Application](#) web page. The request period begins on Monday of the third week of each quarter and closes on Friday at midnight in the second week of the subsequent quarter.