



West Virginia University®



Department of
Physics and Astronomy
Graduate Student Handbook
2023-2024

DEPARTMENT OF PHYSICS AND ASTRONOMY

Graduate Student Handbook

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WELCOME LETTER

TO: All Incoming Graduate Students

FROM: [Maura McLaughlin](#), Chair, Department of Physics and Astronomy

Welcome to the graduate program in physics at West Virginia University. The faculty and staff are eager to meet you and help you start your graduate studies. I encourage you to get to know your fellow students, the faculty, and the staff over the next few months.

Throughout this welcome letter, required information is highlighted in **red**. Moreover, this handbook is full of important dates, contact details, payroll processing information, links to safety training, and guides to navigating graduate school; so please read it completely.

An important first challenge is to get on payroll. Everything you need to know about the payroll process is located online at [WVU Shared Services](#). **You MUST complete the payroll process by August 4, 2023.** The college will not allow you to work until the payroll process is complete. Failure to process payroll by the deadline can result in pro-rated and/or late pay. The Department Administrator, [Ms. Viola Bryant](#) (Main Office, White Hall 111), can help you navigate the payroll process. She can also address hiring and course issues. **Please supply Ms. Bryant with your local phone number as soon as possible.**

Most first-year students will be Graduate Teaching Assistants (TAs). If you are a TA, our Lab Manager, Prof. [Jason May](#) (White Hall 309), supervises the teaching duties of all TAs and will also direct you to take TA training modules offered by the university and the department. **Please report to Prof. May before August 7.**

Please join the Chair for a **catered lunch meeting from 12:00 to 1:00 PM on Tuesday, August 15, in the main department conference room** (White Hall 105). This will be a chance for you to ask questions and for us to review important information. **Add this meeting to your calendar immediately.** This meeting is mandatory, and it is expected that you will attend without additional reminders.

The **first day of classes is Wednesday, August 16, 2023.** All students are expected to be in town early enough to attend the various orientation and training sessions listed at the end of this letter.

In addition to the contact information above, you can find the Chair in White Hall 111. Feel free to ask questions or just say hello. I am looking forward to meeting you!

The faculty advisor for first year graduate students is Prof. [Alan Bristow](#) (White Hall 439). He will be able to address questions about courses, how to find a research advisor and set you up with faculty and student mentors so that you can start to grow your support network within the department. To start the process of finding a research advisor, please check out the department's [research page](#).

There are several orientation sessions that you **MUST** attend as a new graduate student. To streamline the orientation process, the [Office of Graduate Education & Life](#) provides several modules listed below. Attendance is mandatory. Please note that plans for the Fall semester remain in flux. As such, the

locations for these events may change as we learn more about the schedule for the Fall semester.

- 1) **Part 1: *Online Modules: FERPA; Academic Integrity and Dishonesty; Diversity and Accessibility; Title IX Training; Integrating School and Life.*** New GTAs should complete the modules at <https://tlcommons.wvu.edu/iteach/gta-orientation> before August 7, 2023. Completion will be monitored by the Office of Graduate Education and Life and reported to the department.
- 2) **Part 2:** New GTAs should attend the virtual Teaching and Learning Commons GTA Orientation via Zoom on Thursday August 10, 2023, and in person on Friday August 11. These orientations will address topics such as Graduate Academy opportunities, advice from veteran GTAs, Title IX compliance, active shooter training and student health insurance. Attendance will be monitored by the Office of Graduate Education and Life and reported to departments. You may register online at <https://tlcommons.wvu.edu/events-workshops/gta-orientation>.
- 3) **New International Student Orientation.** The International Student Orientation is August 14 in the Gluck Theatre. Please check <https://iss.wvu.edu/students/on-boarding> for updates. This orientation focuses on various important issues relevant to international students and the transition to study at WVU.

International Students must demonstrate their English proficiency. Information on English requirements and alternative testing through TrueNorth is located at <https://elli.wvu.edu/testing-resources/english-proficiency-gtas>.

- 4) **All Graduate Teaching Assistants in Physics and Astronomy must attend the departmental teaching assistant training sessions** to be held on Monday, August 14 from 2:00 PM to 5:15 PM and Tuesday, August 15, from 8 AM to 4:15 PM. There is the possibility of a dinner/panel with current GA's at 5:30 PM.
- 5) **All graduate students must complete the Safety Training to obtain access to the teaching labs and the research labs** (see the Safety Training section of this document).

Finally, I would like to leave you with a few thoughts about my expectations for graduate students within the department. If you are a TA, I expect you to act professionally at all times. This means that you should arrive early for every laboratory session you teach or exam that you proctor. You should treat the undergraduate students and your fellow graduate students with courtesy and respect. You should return graded work promptly and complete your work with care. If students in your laboratory sections are disrespectful to you, please work with Prof. May or myself to resolve the issue. If you are a graduate research assistant, I expect you to document your research and uphold the highest standards of professional ethics. If you are struggling in your research environment, please work with Prof. Bristow or myself to resolve the issue.

I expect first-year graduate students to attend EVERY scheduled colloquium during the academic year. For the fall, colloquia will be held on Wednesdays at 2:30 PM. My hope is that by the end of your first summer here, each student will have identified a research group with whom to work. Keep in mind that in addition to the department faculty, graduate students have worked with faculty in chemistry, electrical engineering, chemical engineering, mathematics, and nuclear medicine. The Ph.D. degree is research based and the sooner you get started in your research, the sooner you can complete your degree. Every faculty member welcomes inquiries concerning their research activities, and I encourage you to speak with each professor you might be interested in working with individually.

In terms of courses, you are expected to attend every meeting of your graduate classes. The department provides a tuition waiver to cover the cost of your graduate tuition and an assistantship to help with living expenses while you are in graduate study. Physics and Astronomy graduate students must obtain permission from the Graduate Advising and Studies committee to take courses outside of physics and astronomy unless they are on the list of “approved” outside courses (see page 11 for this list).

I hope that you find our department an intellectually challenging environment that prepares you for life as an M.S. or Ph.D. physicist. Welcome aboard!

PROFESSIONAL EXPECTATIONS

TO: All Physics Graduate Students

FROM: Maura McLaughlin, Chair of Physics and Astronomy

As a new academic year begins, I wanted to make sure to say “thank you” to all the Graduate Teaching Assistants (GTAs) who will be working to provide quality educational experiences for the students in their classes. I also want to encourage you all to continue to be vigilant about maintaining a positive and collegial work environment for the undergraduate students in your courses and your fellow graduate students. Each semester, GTAs will be evaluated by Student Evaluations of Instruction (SEIs). **The SEIs must be requested for each of your courses each year and the results printed out and submitted to the Lab Manager every semester.** We take teaching seriously at WVU and reviewing the student feedback is something we will do for all your courses.

As you know, physics has a reputation as an intensely demanding discipline in which a not-very-diverse population works. You also know that your students and colleagues come from a range of experiences, ethnic backgrounds, religions, races, sexual orientations, and genders. Thus, it is critically important that each of us consciously work to make our department welcoming to and supportive of every student and colleague. Disparaging personal remarks about a student or a colleague simply have no place in this department, this institution, or our profession. Shared office space is particularly problematic when jokes or conversations get out of hand and create a hostile environment for your colleagues. **Access to office space is a privilege that will be revoked if you cannot act professionally in these shared spaces.** More than likely, each of you will spend 4-6 years in this department. Let us make it a welcoming work environment that all of us will enjoy coming to every day. In order to help you understand best practices in this area, you must complete Title IX training upon arrival and then every three years after that. I encourage you to participate in the activities sponsored by our department Diversity, Equity, and Inclusion Committee as well. These are excellent opportunities to learn.

For more information please consult the [Diversity, Equity and Inclusivity](#) page on our website.

GRADUATION PROCESS-TIMELINE

To be accepted as a candidate for the Ph.D. within the Department of Physics and Astronomy at West Virginia University, a student must pass the oral candidacy exam by the end of their sixth (academic) semester in the program to remain in *good academic standing*.

Students should plan to finish their degree program in a timely manner. This timeline should coincide with a course load that would allow students to leave the program with an M.S. degree if they do not remain in *good academic standing*. The Graduate Advising and Studies Committee is empowered to make all decisions regarding any exceptions to the above timelines.

Typically, a first-year student should choose a faculty member with whom to complete their doctoral research. The student's choice of faculty advisor must be accomplished in a timely manner to pass the candidacy exam by the end of the sixth (academic) semester in the program. Details of the candidacy exam are given in the next section.

In addition to the departmental requirements, West Virginia University dictates that doctoral candidates are allowed no more than five years in which to complete the remaining requirements of their program after being admitted to doctoral candidacy. Passing the candidacy exam starts the doctoral candidacy clock. This is a rule mandated by WVU which cannot be appealed internally. Therefore, given the timeline for the candidacy examination, a Ph.D. student must complete their final dissertation defense no later than the end of the spring semester of their ninth year after entering the program. Fortunately, this rarely happens; typically, students in our department complete their Ph.D. degree within five to six years.

CANDIDACY EXAMINATION INFORMATION

Timeline: All students must pass the candidacy exam by the end of their sixth (academic) semester in the program to remain in good academic standing. By this time you should have a [research advisor](#).

Purpose and scope: Currently, the candidacy exam consists of a presentation to the members of the student's doctoral committee (in an open/public forum) in which the student reviews some of the published research in the chosen subfield of specialization. The exam will normally be based on a single article chosen by the student with guidance from their research advisor. The student is expected to present the findings, place the work in context, and provide a critique of the published work. In response to the presentation, the student will be asked questions from the general audience. After this, the student will be asked additional questions from the doctoral committee in a closed session.

Typically, the doctoral committee will ask questions that relate the research to more fundamental physics and not require the student to know the entire literature of the discipline or subfield, although some contextual knowledge will be expected.

Normally, the talk is roughly 40-50 minutes, and the public portion of the candidacy exam, with questions, is roughly an hour. The closed session with the doctoral committee is typically about 90-120 minutes. These are only guidelines, and a particular committee may require more or less time to evaluate a prospective Ph.D. candidate.

Pass/Fail: The candidacy exam is a pass/fail exam. The department will arrange for the committee signature form for the exam to be ready for committee members to sign and provide the form to the committee chair. This should be submitted to the main office with all committee member signatures. If a committee member participates remotely, they may sign the paperwork digitally or write a permission e-mail to have another committee member sign on their behalf.

In accordance with the graduate catalog for the Ph.D. degree, the committee will pass a student that has demonstrated the following abilities in the candidacy exam:

- Understand and critically evaluate the published work chosen by the candidate and its relation to the broader field of research
- Explain physics and/or astronomy principles pertaining to the published work chosen by the candidate
- Communicate effectively through oral presentation aided by slide presentations, chalk-board discussion, etc.

If a student does not meet the requirements to pass the candidacy exam, the committee can recommend the student repeat the exam in part or in full. The committee can also recommend an outright fail, such that the student will not be given another opportunity to retake the exam.

Ph.D./Doctoral Committee: Three or more members must be members of the WVU graduate faculty. Three members must be from the faculty of the Department of Physics and Astronomy. The fourth member may be internal or external to WVU. If external to WVU, the fourth member must hold a Ph.D. (or equivalent degree) in a field related to the candidate's dissertation research. If internal to WVU, the fourth member must be from a department other than Physics and Astronomy. All members must have a Ph.D. or equivalent degree.

REMAINING A STUDENT IN GOOD ACADEMIC STANDING

To remain a graduate student in good academic standing, a student must:

- Maintain a GPA of 3.0 or better in graduate physics courses taken at WVU, excluding physics 797 and including any grades obtained by repeating a graduate course.
- Choose a Ph.D./doctoral committee and pass the candidacy exam by the end of their sixth academic semester.

A student who is not in good standing because of a GPA < 3.0 or failure to pass the oral candidacy exam according to the above schedule will have his/her academic record reviewed by the Graduate Studies and Advising Committee and continuation in the Department of Physics and Astronomy Graduate Program will require the Committee's approval. Students admitted as M.S. degree candidates are not expected to take the oral candidacy exam but must complete their studies by the end of the sixth semester in the program, while maintaining a GPA of 2.75 or better.

Students who have passed the oral candidacy exam are "doctoral candidates." Doctoral candidates are allowed no more than five years to defend their dissertation. The clock on doctoral candidacy starts once the candidacy exam is passed. After the candidacy exam is passed and until the Ph.D. dissertation defense, annual reviews must be completed by the student and the student's Ph.D. committee.

- Students (with guidance from their research advisor) should form their Ph.D. Committee prior to their oral candidacy exam.
- After passing the oral candidacy exam, the Ph.D. committee will evaluate the student's progress annually before the end of March. It is the student's responsibility to arrange the annual meeting.
- Before the annual evaluation meeting, the graduate student must prepare a written summary of their progress (in the format listed on page 16 of this document). A copy must be sent to all members of the committee.
- During this annual evaluation meeting, the student is to give an oral presentation of research progress to date. A plan on how the student intends to graduate within five years of passing the candidacy exam must be part of the presentation.
- Only a quorum (two members plus the chair) of the committee is required to be present (either in-person or virtually) during the annual evaluation.
- The committee deliberates and, if progress is deemed to be satisfactory, the committee chair will sign the student's report to indicate that the student is in good standing.
- The summary is submitted to the chair of the Graduate Advising and Studies Committee.
- Students who are not in good standing must prepare a plan to bring their standing back into good standing during the next year and submit that to the chair of the Graduate Studies and Advising Committee. The Committee will review the student's case and determine whether the student is allowed to continue in the program. This decision will be based on metrics such as research progress in the form of papers or presentations, or other achievements.
- Students who are not in good standing for two consecutive years may not continue in the Ph.D. program.

Appeals Process

If a student wishes to appeal a decision that may jeopardize their good academic standing, then they should consult these guidelines and WVU's [policies](#). Prior to an appeal, the student should speak with the department chair or Graduate Advising and Studies Committee to clarify the process and determine whether the matter can be addressed without the need for an appeal or if an official appeal is needed at either the department or university level.

If a student wishes to appeal a decision in the department, a written appeal must be addressed to the chair of the Graduate Advising and Studies Committee. The written appeal should include the decision that is being appealed, a legitimate reason why the decision should be appealed and an account of evidence to prove the reason within 30 days of the incident that is being appealed (unless there is also a legitimate reason for a delay in the appeal, for which evidence should also be provided).

Once the written appeal has been sent to the chair of the Graduate Advising and Studies Committee, the committee will investigate the legitimacy of the claim, the evidence and the scope of any decision or change of decision. After the investigation, the Graduate Advising and Studies Committee will recommend that the chair revise or stay the decision, with a recommendation course of action, if the decision is to be revised. Note that complex appeals may require consultation outside the department or even the university.

An appeal should not be directed for a single or series of course absences and should be directed to the instructor of the relevant course. Series of events, such as health, leave for work or similar should be addressed to the Graduate Advising and Studies Committee in advance and therefore not considered an appeal. Programmatic decisions, (including but not limited, qualifier exams, annual doctoral committee meetings and research-related decisions that affect good academic standing) can be considered for appeal, although these could also be addressed more informally with relevant faculty.

ACCOMMODATIONS

Students may require accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, as well as other state and federal laws.

Accommodations can be sought through the [Office of Accessibility Services](#) (OAS). The OAS is dedicated to enhancing the educational opportunities for students with temporary and permanent disabilities at WVU. To ensure access to university programs, accessibility specialists work individually with students to help them achieve academic success. All documentation submitted to OAS is kept separate from the academic records and is considered private under the Family Education Rights and Privacy Act (FERPA).

Accommodations may apply to classes, exams etc. In order to obtain these accommodations, you must have a documented disability (anxiety, panic attacks, etc.) and you must provide proof of this from a professional (i.e. psychiatrist, psychologist, family doctor, etc.) OAS can provide accommodations such as extra time on exams, a separate space for exams, periodic breaks, etc. For clarification, please contact the OAS with any questions or concerns.

Office of Accessibility Services, B20 Stewart Hall, 304-293-6700, Email: access2@mail.wvu.edu, Web: <https://accessibilityservices.wvu.edu/>

EXAMPLE PLAN OF STUDY FOR THE PHD DEGREE

Year 1:	Courses	Mastering fundamental physics at the graduate level
	PHYS 797	Surveying choices for research advisor
Year 2:	Courses	Completing core courses
	Courses	Surveying subfields of specialization
	PHYS 797	Intellectual contributions in research
Year 3:	Courses	Surveying subfields of specialization
	Courses	Advanced analysis in subfield of specialization
	Self-study	Completion of the candidacy examination
	PHYS 797	Intellectual contributions in research
Year 4:	PHYS 797	Intellectual contributions in research
Year 5:	PHYS 797	Intellectual contributions in research
		Writing and defending the dissertation
Year 6:	PHYS 797	Intellectual contributions in research
		Writing and defending the dissertation

Typical Fall Courses

PHYS 611	Introduction to Mathematical Physics
PHYS 651	Quantum Mechanics 1
PHYS 634	Electromagnetism 2
PHYS 710	Nonlinear Dynamics
PHYS 761	Statistical Mechanics
PHYS 771	Introduction to Solid State Physics
PHYS 774	Optical Properties of Solids
PHYS 782	Computer Simulation of Plasma
PHYS 784	Magnetohydrodynamics
PHYS 791	Advanced Topics
ASTR 701	Computational Astrophysics
ASTR 702	Stellar Structure and Evolution
ASTR 705	Interstellar Medium

Typical Spring Courses

PHYS 633	Electromagnetism 1
PHYS 631	Classical Mechanics
PHYS 652	Quantum Mechanics 2
PHYS 772	Semiconductor Physics
PHYS 773	Collective Phenomena in Solids
PHYS 781	Principles of Plasma Physics
PHYS 783	Kinetic Theory
PHYS 791	Advanced Topics
ASTR 700	Radio Astronomy
ASTR 703	Galactic Astronomy
ASTR 704	General Relativity
ASTR 791	Advanced Topics

Doctor of philosophy requirements

Before the completion of their third year in the program, students must deliver a presentation reviewing a published paper related to the candidate's research field followed by an oral examination with the student's doctoral committee. Students who pass the exam are admitted to candidacy for the Ph.D. degree. Research is then the central focus of the degree and is directed by a faculty advisor. When the student's research is completed, it is described in a written dissertation and defended before the doctoral committee. The average completion time for the Ph.D. is five years.

The Ph.D. requires 37 credit hours, including eleven required courses and four hours of PHYS 797 (research credit). The eleven courses must include the five core courses 611, 631, 633, 651, and 761, one of either 634 or 652, and any two of the following: PHYS 710, 726, 763, 764, 773, 783, 784, 791, 793, ASTR 700, 701, 702, 703, 704, 791, and 793.

The three remaining elective courses may be chosen from courses in the above list and those outside of Physics and Astronomy with the constraint that courses must be approved by the graduate advising and studies committee. Courses previously approved remain on a pre-approved list. The current list of approved courses is:

EDP 613. Statistical Methods 1
 EDP 614. Statistical Methods 2
 EDP 619. Survey Research Methods
 EDP 711. Multivariate Methods 1
 EDP 712. Multivariate Methods 2
 EE 528. Biomedical microdevices
 EE 564. Digital Signal Processing for Radio Astronomy
 EE 650. Optoelectronics
 CS 676. Machine-Learning

Courses may be added to this list provided that a reasonable justification, a copy of the syllabus, and a copy of the book are provided.

TYPICAL COURSE PLAN FOR GRADUATE STUDY

Fall #1

PHYS 611 Introduction to Mathematical Physics

PHYS 651 Quantum Mechanics 1

PHYS/ASTR Elective (optional)

Spring #1

PHYS 633 Electromagnetism 1

PHYS 631 Classical Mechanics

PHYS/ASTR Elective (optional)

Fall #2

PHYS 761 Statistical Mechanics

PHYS/ASTR Elective

PHYS/ASTR Elective (optional)

Spring #2

PHYS/ASTR Elective

PHYS/ASTR Elective

PHYS/ASTR Elective (optional)

Undergraduate courses: A student may choose to take undergraduate courses in their first year if they feel inadequately prepared for the graduate-level courses. These courses will not be counted towards the graduate degree, but they will maintain the student's good standing.

In summary,

<u>The purpose of:</u>	<u>is for:</u>
core graduate courses	<ul style="list-style-type: none"> •mastering fundamental physics at the graduate level •prerequisites for the topical graduate courses
topical graduate courses	<ul style="list-style-type: none"> •deciding upon the research specialty (600 level) •background for the advanced graduate courses
advanced graduate courses	background for the PhD dissertation (700 level)
research (PHYS 797)	making progress in research in one's specialty
teaching assistantship	instructional support of the department's teaching mission
research assistantship	personnel support of a specific professor's research program

Registering for Courses

Detailed information on registering for classes is located at on the [Registrar's web site](#). Your login is your WVU username and password.

PLAN OF STUDY FOR THE MS DEGREE

Some students enter graduate school with the goal of obtaining a master's degree and others obtain a master's (M.S.) degree on the way to their PhD degree. Because the path to a M.S. with a thesis involves research with a faculty advisor, it is important that students wishing to complete a M.S. degree in two years understand the accelerated pace at which they will have to work.

Non-thesis option: A student may earn an M.S. degree without doing thesis research by completing 30 hours of physics courses (with a $\text{GPA} \geq 2.75$) at the 600 level or above, including physics 611, 631, 633, 651, and 761.

Thesis option: Requires a $\text{GPA} \geq 2.75$ in 18 hours of physics courses at the 600 level or above, including physics 611, 631, 633, 651, and 761. To complete an MS thesis in two years the student should identify a thesis supervisor at the end of Fall #1 and begin doing research in Spring #1.

ALTERNATE WORKLOAD POLICY

Funded graduate students in the Department of Physics and Astronomy may, on occasion, require an alternate workload assignment for the birth/adoption of a child, a personal, serious health condition, or to care for an immediate family member with a serious health condition. In these rare circumstances, every effort should be made to protect the annualized lecturer's or funded graduate student's stipend and appointment.

I. Eligibility

Graduate Students: The alternate workload policy applies to full-time, enrolled graduate teaching assistants who are in good academic standing and making satisfactory progress toward completion of their degree.

II. Provision

- An eligible funded graduate student granted an alternate workload assignment receives 100 percent of his/her stipend and other benefits associated with the appointment.
- For an eligible funded graduate student, the stipend will be maintained for up to six weeks or until the last day of the appointment, whichever comes first. The six-week alternate assignment start and end dates are coordinated among the department Chair, Associate Chair of Graduate Studies and Research, and the graduate student's research advisor.
- The same appointment status (with equivalent benefits, pay, and other terms) will be available after a medical/family leave of absence has been taken, provided the appointment or reappointment would normally have been available. Assigned duties, however, may be subject to change. While graduate students are expected to return to their teaching assignments at the conclusion of their alternate work assignment, the department administration will work with them during the semester in which the leave occurs to define roles and responsibilities that may provide additional flexibility (e.g., online instruction, teaching assignment may be structured to focus on grading support, preparing course materials, or less-intensive duties).

III. Extension of Time Limits to Degree or Candidacy

Because the student remains enrolled as a full-time student and continues to pay tuition, this is not a leave of absence. It is instead a modification of deadlines and academic expectations to accommodate the student's situation. The student will be able to postpone completion of course assignments, examinations, and other academic requirements. The advisor and student should consult in advance about how the student will meet academic goals and requirements. The student is responsible for ensuring that this consultation takes place. The accommodation period needs to be tailored to the student's individual circumstances, and the timing of the student's academic responsibilities, but it will typically be a one-semester extension. After the end of the alternate workload period, students are expected to return to graduate study and resume progress toward completing their degrees.

Special Notice to International Students: International students should discuss the intended leave period with the [Office of International Students and Scholars](#) at the beginning of the planning period to identify and address proactively any individual or unique visa issues and/or to consider the latest applicable regulations.

IV. Student and Lecturer Funding During the Alternate Workload

A. Graduate Teaching Assistants: With advance planning, many assignments can be adapted for modifications of schedule during an alternate workload assignment. Eligible graduate students with GTA appointments are encouraged to work out the necessary adjustments as far in advance as practical. During the leave period, the students will continue to receive their salary or stipend, benefits, and associated tuition support.

B. Fellowship Recipients: Eligible students who are supported by WVU fellowships will experience no change in their funding arrangements during the Alternate Workload Assignment; they will continue to receive their fellowship support and benefits during the new assignment.

C. Graduate Students without Financial Support: Students who do not have an on-going commitment of financial support from the University are eligible for extension of time limits but are not entitled to funding.

D. Limitations: If partners or spouses are both full-time graduate students in Department of Physics and Astronomy at WVU, *only one* student may receive an Alternate Workload Assignment for any given event. (The other partner or spouse may, of course, still request an unpaid leave without tuition support.)

V. Approval

At least eight weeks prior to the anticipated beginning of an Alternate Workload (*and sooner if possible*), graduate teaching assistant students should submit a written request for the workload adjustment to the department chair. The department needs sufficient time to find an appropriate replacement for teaching responsibilities and to outline expected teaching and research activities before and following the adjustment period. However, the department understands that personal and family medical emergencies are often not anticipated. The department will do everything possible to work with graduate students during their time of need. Graduate students applying for a workload adjustment must arrange with the relevant faculty advisor for course completion and a timeline for meeting other academic requirements such as Ph.D. oral candidacy exam or other milestones that will be affected by the adjustment and by the one semester extension of academic requirements. A copy of this agreement should be on file with the department.

VI. Student and Lecturer Course Coverage During the Alternate Workload

The department chair, associate chair, and, if relevant, the student's graduate program supervisor, will develop a plan to cover course sections for six weeks.

Physics and Astronomy Graduate Student Report on Progress and Plans

(covering the past twelve months and the upcoming six months, for students who have been admitted to PhD candidacy)

Graduate student name/email address:

Report submission date (Day.Month.Year):

Date of committee meeting (if required):

Members present (either in person or on zoom):

Year admitted

Date student entered PhD candidacy:

Estimated date of PhD defense (Month.Year):

Desk location (room/building):

Research advisor (if decided):

PhD committee members (if decided) names (include an asterisk if faculty is external):

Courses completed during past academic year (2019-2020), including research credits, with grades:

Courses planned for the next academic year (2020-2021), including research credits:

Conferences/Workshops attended during the past two years:

Name of meeting; Location/Date; Title/Authors of co-authored posters/talks

Manuscripts submitted, accepted, or published (S/A/P) during the past two years:

Title of Paper; Journal Name/Year; Author list; Choose one: S, A, P

Describe your thesis project's objective (MS or PhD) in one paragraph:

Describe your past-12-month accomplishments toward your thesis project's objective in a list or in a couple paragraphs.

Describe your upcoming-six-month goals toward your thesis project's objective in a list or in a couple paragraphs.

Describe your long-term goals, if known: (e.g., career in industry, academia, education, outreach, etc.):

Herewith I certify that the information contained in this report is correct and that the student has shared this information with the Ph.D. committee (as an oral presentation or as a written report).

Advisor Signature

PS An email from your advisor confirming the content of this report is sufficient.

EPA AND OSHA FEDERALLY MANDATED HAZARDOUS WASTE SAFETY TRAINING

All graduate students working in (teaching or research) laboratories in the Department of Physics and Astronomy must complete an annual course on hazardous waste and lab safety. It is strongly recommended that all in-coming students do this training in their first year. [Online training is available continuously on eCampus.](#)

Please follow the instructions:

- Make sure you complete the EHS Hazardous Waste 2023 training (Access Code **5fsYVONz**).
- Go through all the required content in the training module.
- Complete the quiz at the end of the module successfully with a minimum 80% grade. The completion form will then appear at the end of the module.
- Fill out the required completion form. You must complete the Required Personal Information Form after you pass the training. If you do not complete this form, you have not completed the training and your name will not appear in the “completed” training list.
- Once you complete the training and the Required Personal Information Form, please send an email to [Miranda Heitz](#). She will check the EHS training spreadsheet to make sure your name has been added to the list.
- Your name will be added to the master list maintained by the Department of Physics and Astronomy and mandated by EHS/DEP. It is critical that this list is accurate and up to date.

All graduate students are also required to review the WVU Eberly College of Arts and Sciences [Laboratory Safety Manual](#), sign Appendix G, and provide a copy to our department office.

In addition to these requirements, some labs also require specialized training. Please check with the faculty researcher prior to entering any lab. For example, an [online laser safety training guide](#) is available on the Physics and Astronomy web site.

DEPARTMENTAL INFORMATION

Administrative Support for Tasks	Please refer to our Administrative Support Guide to find the help with office tasks in the department and the specific person who can help you.
Car Rental	When you are traveling by car, you can be reimbursed for mileage using your own vehicle or for expenses related to renting a vehicle, whichever you prefer. You no longer are required to take a rental based on the lower expense.
Car Rental Collision Damage Waiver	Commercial auto liability and auto physical damage insurance coverage is included in the rental vehicle rate with Enterprise/National Car Rental (coverage is not included for Alamo rentals). Employees are not to purchase any optional insurance coverage when renting a vehicle from Enterprise or National Car Rental.
Computer Equipment	The department generally does not supply computer equipment for your office. The WVU Procurement web site provides discounted computer purchasing information for Dell and Apple computers. For computer networking and other operational questions, please contact Greg Lusk .
Conference Rooms	There are conference rooms for your use in White Hall rooms. These rooms are 105, 201, 243, 301, 343, 401 and 443. To reserve a conference room, please contact Viola Bryant . You may use any conference room that is not in use. However, please note that reserved status takes precedence over unreserved use of the room.
Department Directory	Updated directories of name and office assignments can be found on each floor opposite the elevator and at most building entrances in White Hall. An updated telephone directory will be provided at the beginning of each semester.
Electronics Shop Service Requests	If you need electronics work done in the department, please contact Greg Lusk (293-0917). Please complete the Electronics Service Request and email it to Greg or place it in his mailbox in the department office.

- Email Listserv** There are several email listserv groups related to our department. Please use discretion in sending emails – they should be relevant and direct. Changes to the listserv should be directed to Viola Bryant
- EC_PHYSICS_GS@listserv.wvu.edu - *Physics Graduate Students*
- Machine Shop Service Requests** If you need machine shop work done for your research lab or class, please contact [Doug Matthess](#) at 304-293-4732. Please complete the [Machine Shop Service Request](#) and email it to Doug or place it in his mailbox in the department office.
- Office Space** Office space is assigned and managed by the department. Please direct any requests for office space to [Miranda Heitz](#). Door requests may be made through the [Door Access Request Form](#).
- Office Supplies** The department will provide basic office supplies (stapler, tape dispenser, paper/binder clips, etc.). You are expected to provide such things as lab notebooks or other specialty items related to your work. If you have specific needs for office supplies, contact [Viola Bryant](#).
- Print/Copy/Scan/Fax** There is a central copier in the department office (room 111) on which you can make copies, print from your office computer, scan and fax documents. If you need help networking your office computer with the department copier, please contact [Greg Lusk](#).
- Wireless Access** WVU supports wireless access around most of the campus (including White Hall). Go to [Information Technology Services](#) for more information on this service and locations where wireless service can be accessed.
- Useful Links** WVU Physics <http://physics.wvu.edu>
Physics Facebook Page www.facebook.com/WVUDepartmentofPhysics
Eberly College of Arts and Sciences <http://eberly.wvu.edu>
- Web Site** The [Department Web Site](#) is a useful resource. If you are looking for a faculty research page, news on the department or college, or other information about the department, please check this web site. To make an update to the web site or provide your photo for publication on the department directory, please use this link: [Website Directory Update Form](#)

BUILDING INFORMATION

Address/Telephone

Physical Address: 135 Willey Street, Morgantown, WV 26506
Mailing Address: WVU Physics, PO Box 6315, Morgantown, WV 26506
Department Office Telephone: 304-293-3422
Department Fax: 304-293-5732

To make a campus phone call: Dial the last five digits of the person's telephone number.

To make a local call: Dial "9" and then the telephone number. You will have to include the area code even if it is local.

To make a long distance call: Dial "8" and then the area (or country) code and telephone number.

Building/Room Access

Entrances to White Hall are unlocked automatically from 7:00am-7:00pm Monday through Friday (except for university holidays) every week, including school breaks. After hours/weekend access to White Hall is approved on an as-needed basis. Access to rooms within White Hall is with your WVU ID card. Insert your ID card in the slot on the door with the magnetic stripe toward the door and to the left and remove. A steady green light indicates that you have access to that door. A blinking red light indicates that you do not have access to that door. Please see [Miranda Heitz](#) for assistance with all requests for building or room access.

Emergencies

White Hall is equipped with a sophisticated emergency alert system. There are fire alarms in all the hallways and labs. When a fire alarm is activated, the fire doors will close, an alarm will sound throughout the building and a recording will direct you to leave the building.

For medical and other emergencies, ***please dial 911 (9-911 from campus phones)*** or call the University Police at 293-2677 (COPS). You can also call the department office at 293-3422.

Please read the following [building emergency procedures](#) requiring evacuation or seeking shelter in place.

Laboratory Safety Plan

WVU Physics has a comprehensive Laboratory Safety Plan. Please review this with all students and staff working in your lab. Click here: [Laboratory Safety Plan](#).

Machine Shop Usage

For information on using the machine shop, please click here: [Machine Shop Usage](#). You can also contact [Doug Mathess](#) <mailto:carl.weber@mail.wvu.edu> for information on the machine shop.

Maintenance/Repairs

Requests for repairs or maintenance in the building are filtered through the Administrative Assistant. If you notice items in your office or in common areas that need maintenance or repairs, please contact [Viola Bryant](#) who will place a work order.

PURCHASING/PROCUREMENT

Amazon Purchases	With the Amazon Tax Exemption Program (ATEP) , you may be eligible for tax exempt status for purchases from Amazon. You can get the necessary WVU certificate of tax exemption here .
Procurement Card (PCard)	Many purchases can be made with a procurement card (also called a purchasing card or Pcard). Once you are part of a research group, you may apply for a Pcard. Please refer to the Pcard User Guide for guidance on proper Pcard usage. You must complete Pcard Training prior to receiving or using a Pcard.
Purchase Orders	All purchase orders are issued through Mountaineer Marketplace . Purchase orders are created for all items not purchased with a Pcard.
Purchase Paperwork	All Pcard purchase documentation is submitted through MyExpenses . You need to retain all receipts for purchases and submit a business purpose and scanned receipts through MyExpenses.
Software License Agreements	All software purchases/license agreements must be approved by WVU Information Technology. Please complete the IT Purchase Approval Form , and you will be notified if the purchase is pre-approved or if the purchase requires an IT, security, or revenue review.
Sole Source Justification	<p>Waivers for competitive purchases over \$50,000 must be justified in writing and approved by Procurement Services before any transaction can take place. Purchase requisitions over \$50,000 that designate only one source or brand must be accompanied by documentation explaining why the specified product or source is singularly able to meet the units' needs. A listing of the unique technical specifications required of the product and the potential suppliers that were contacted in the search for alternative sources is necessary. Procurement Services will review the information submitted and make a determination on the appropriateness of a sole source purchase and either approve it or do further market research.</p> <p>Complete the sole source justification form and submit it for processing.</p>
Tax Exempt Status	WVU and WVU Research Corporation are tax exempt and should not pay tax to in-state vendors. Please remind vendors of tax exempt status before initiating a transaction. A copy of the WVU tax-exempt certificate can be found at: http://taxservices.wvu.edu/home/faq_sales_and_use_tax .

TRAVEL INFORMATION

Faculty/Staff/Student travel settlements are processed by the [Miranda Heitz](#).. **Guest/Visitor** travel settlements are processed by [Viola Bryant](#).

Travel Support Documents

Travel support information, including travel forms, Enterprise rental information, per diem rates, a currency converter and a link to the WVU travel site can be found on the [Physics and Astronomy web site](#).

Before Your Trip

You can make travel reservations through [My Travel](#).

After Your Trip

You will submit all your travel information through the [My Expenses – Personal Reimbursement, Travel Settlement and Travel Related Purchases system](#).

Travel Policies at a Glance

The following are reminders of common things that impact your travel settlement.

1. Your Pcard is the preferred method of payment for most travel expenses.
2. Food may not be purchased with your Pcard.
3. People who are traveling and rooming together must turn in their travel settlements at the same time for processing.
4. Only signed, original receipts should be submitted for reimbursement.
5. When meals are provided by a conference or seminar, those meals cannot be reimbursed.
6. Meals are reimbursed at the per diem rate for the location of travel, unless the PI sets a limit for meal reimbursement.
7. Persons traveling in foreign countries should report their expenditures in U.S. dollars.

GRADUATE STUDENT MENTORING PROGRAM

Our graduate student mentoring program was developed to ensure that students feel welcome in the department and have all the resources they need to be successful. Upon acceptance to WVU, every prospective student will be assigned a graduate student contact who can answer questions about the program, WVU in general, or about living in or moving to Morgantown. Upon their arrival in the fall, new graduate students will meet peer and faculty mentors at a “mentor mixer”, read statements submitted by peer and faculty mentors describing their background and mentoring style, and rank their choices for mentors. A peer and faculty mentor will then be assigned to each student based on these rankings. First-year students are expected to meet with their mentors roughly bi-weekly. While these mentoring relationships are expected to continue throughout graduate school, the expectation is that the meeting frequency will decrease with time (for example, a second-year student may meet with their mentor a few times a semester and a fifth-year student may only meet with their faculty mentor once a semester). Every year, graduate students will have the opportunity to select a new peer and/or faculty mentor.

Every spring, the Chair of the Graduate Advising and Studies Committee will put out a call for peer and faculty mentors. Both graduate students and faculty members who apply will receive mentorship training to fulfill this role. Note that not all faculty will serve as mentors, and that this relationship is meant to supplement, not replace, the role of a research advisor.

This mentoring program is a critical component of WVU’s status as an APS Bridge Program Partnership Institution. As a Partnership Institution, WVU is committed to provide a supportive environment for graduate students, with the aim of increasing the number of Physics PhDs awarded to underrepresented minority students.

ADDITIONAL GUIDES AND RESOURCES FOR SUCCESS

Below are some of the numerous books, articles and handbooks that have been written on how to be a successful student in graduate school.

[How to Get the Mentoring You Want: A Guide for Graduate Students](#) (Rackham Graduate School, University of Michigan 2015).

How to be a Successful Graduate Student and Advisors (Marie desJardins)

[PART 1](#)

[PART 2](#)

[20 Habits of Successful Graduate Students](#) (GradSchool Center, 2022)

[WVU Graduate Student](#) website