



# PHYSICS AND ASTRONOMY (PHD)

This is a dual-degree program offered by the Department of Physics and Astronomy, leading to a master's and a doctoral degree in Physics and Astronomy.

## Description

With approximately 90 graduate students and 27 faculty members, the department maintains a friendly and informal atmosphere that is conducive to close interaction between faculty and students.

Our faculty bring in over \$16 million per year in scientific research grants, which provides students with research assistantships, support for travel to national and international meetings, and access to state-of-the-art research equipment, including computational facilities and fully staffed electronic and instrument shops. One example of the cutting-edge research facilities available is the Extreme Light Laboratory, which houses a multi-million-dollar laser system capable of focusing light to the highest level of intensity ever achieved. Not only is this capability expected to lead to new discoveries in fundamental physics, but it has important multidisciplinary applications in materials science, chemistry, biology, as well as medicine, security, and defense.

Our program prepares students for employment in all sectors. Students interested in academic or government employment have been hired as postdoctoral research associates at Princeton, Caltech, Berkeley and the Office of Naval Research. Our graduates also work in the industry at places like Seagate, Applied Magnetics, Micron and Eaton SEO and in academia, including McMurry University, Loras College, Fort Hayes State University and St. Thomas University.

## Program-Related Information

### Graduate Chair

Shireen Adenwalla  
402-472-2709  
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### Co-Chair

Bradley Shadwick  
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### Support Staff

Kelcey Gabriel  
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## Program Website

<https://www.unl.edu/physics/graduate> (<https://www.unl.edu/physics/graduate/>)

## Applying for Admission

### Standard requirements for all graduate programs

- Application for Admission with \$50 non-refundable application fee (<https://graduate.unl.edu/admissions/requirements/#appfee>).

- Transcripts (<https://graduate.unl.edu/admissions/requirements/#transcripts>) (unofficial): Uploaded as part of application form.

If International: Uploads must include all college- or university-level transcripts or mark sheets (records of courses and marks earned), with certificates, diplomas, and degrees plus certified English translations.

After admission: Official documents are required from all students who are admitted and enroll. Photocopies of certified records are not acceptable. International students enrolled in other U.S. institutions may have certified copies of all foreign records sent directly to the Office of Graduate Studies by their current school's registrar office.

- If applicant's native language is not English, verification of English proficiency (<https://graduate.unl.edu/admissions/english-proficiency/>) is required.

When sending TOEFL scores, our institution code is 6877 and a department code is not needed.

- If applicant is not a US citizen and expects an F or J visa: financial information (<https://graduate.unl.edu/prospective/international/financial/>).
- Applicants must also fulfill any additional requirements the department specifies at the time of application.

### Additional requirements specific to this program

- GRE General and GRE Physics tests are optional
- Curriculum Vitae: Your CV should include a complete account of your academic background, scholarly accomplishments, awards, professional activities, published work, and research experience.
- Personal Statement: Describe your academic and research background and accomplishments, research interests, professional goals, and reasons for pursuing a graduate degree at UNL.
- Research Interests: Indicate up to two preferences among the following options: Atomic, Molecular, Optical, and Plasma Physics (experiment or theory); Condensed Matter and Materials Physics (experiment or theory); High Energy Physics (experiment or theory). You may also write "Flexible" if you don't have a particular preference.
- Faculty: Identify up to four faculty members you are interested in working with.
- Publications: Upload your publications, if any, in the Experience, Awards, and Publications section of the application form. Include your research papers, preprints, theses, and other such materials that demonstrate your professional accomplishments. For papers that are published and readily available it is sufficient to include citations and URL links in the CV.
- Other Upload (optional): You are welcome to use the application's Other Upload slot for any additional documents that you would like us to consider. You may wish to include abstracts, publications, documentation of special recognitions or certifications, or other similar supporting information. Please provide this as a single PDF file of 10 MB or less. Please do not duplicate documents uploaded elsewhere in this application.
- Letters of recommendation: A minimum of 2 recommenders are required; 3 is strongly recommended; the fourth is optional.

### Admission Application Deadlines

For financial consideration: January 15 for Fall.

## Requirements

Hours required: 90