

Seeking Graduate Student Mentors

TIMESTEP

TIMESTEP Programs for Undergraduate Majors in the Physical Sciences at U of A

TIMESTEP is seeking graduate students to support program coordination and student mentoring for all three upcoming TIMESTEP programs, which are designed to promote professional and career development skills for University of Arizona undergraduate students in the physical sciences (primarily astronomy & physics majors).

TIMESTEP's technical internships provide undergraduate STEM majors with valuable workforce experience, an opportunity to apply learned skills, and a forum for networking to be more successful in securing both industry and graduate school positions.

1. Summer Tech Internship

This position provides a unique opportunity to gain exposure to a variety of tech companies in Southern Arizona, build your network, and gain mentoring experience.

- Stipend of \$2000 for 4 hours average per week, April to mid-Sept
- Support 4-5 undergrad interns via weekly online meetings and regular surveys to ensure a positive experience. Provide guidance to interns on skills used in the workplace- professional and scientific communication, organization, time management, etc.

2. Astronomical Software Engineering Internship

Learn more about software engineering as you mentor students in this TIMESTEP program, which allows undergrads to work in software engineering teams that are tackling some of the most cutting-edge challenges in the field.

- Stipend of \$4000 for 4-5 hours average per week, mid-August to May 1, with nominal planning time April - August
 - Support up to 5 undergrad interns via bi-weekly workshops and mentoring meetings
 - Work collaboratively with the project PI and TIMESTEP team to support deliverable success
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Benefits

- Learn about industry standards & in-demand skills
- Gain exposure to a variety of tech companies or research partners to build your network
- Improve your skills as a mentor via in person training and weekly online team meetings
- Gain insight into program coordination-how the program is organized, assessed, and funded

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TIMESTEP's Research Apprenticeship Program offers an entry point into research for 2nd year undergraduate majors in astronomy and physics, working in a cohort to learn technical skills and receiving support to navigate a first-time research project.

3. Research Apprenticeship

Improve your ability to teach technical and professional skills and gain experience mentoring undergrads as they begin research.

- Stipend of \$3000 for 4 hours average per week, mid-August to May 1 (with breaks off)
- Mentoring training and guidance in teaching techniques will be provided
- Support 4-5 undergrads via weekly workshops Friday afternoons and bi-weekly mentoring meetings

Teaching Support for a New Course

The 2026-27 Research Apprenticeship will be run in collaboration with a new elective, ASTR276, focusing on research methods in astronomy. For additional compensation (TBD), graduate mentors for the Research Apprenticeship will also assist in teaching this course with Dr. Gurtina Besla. Each mentor will lead a subset of lessons for the class, focusing on these topics:

- Computation skills- Linux Command Line/Terminal, Python, Data visualization (Numpy, Matplotlib), Data Handling (Numpy, Astropy, Pandas)
 - Lab skills- CAD, 3D printing, soldering, circuitry, Raspberry pi & Arduino, basic optics, digital signal processing/oscilloscopes
 - Scientific communication- reading scientific papers, literature review & NASA ADS, Overleaf/LaTeX, keeping research notes, written and oral presentations
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Benefits

- Receive pedagogical training to improve your ability to develop and teach lessons
- Work collaboratively with a team of grad students, teaching and research faculty, and staff, thereby expanding your network
- Improve your mentoring skills via in person training and weekly online team meetings
- Gain insight into program coordination-how the program is organized, assessed, and funded

Application Information

Please email your **resumé** and a **cover letter** highlighting your mentoring and teaching experience, technical skills, and listing the position(s) you are seeking at the top to timestep@arizona.edu

Find detailed information about these open positions on our [website here](#).

Applications will be accepted on a rolling basis with review beginning March 23rd



Societal Impact



Astronomy
& Steward Observatory