

**Teaching:** My goal as an educator is to create a supportive environment in which students embrace growth and challenges. I work to strike a balance between both formative assessment (work that gives feedback on the effectiveness of my teaching and students' learning strategies) and summative assessment (graded work). This sends the message that practice and effort are rewarded, and that students should not be afraid to attempt a challenge. At SJSU, I challenged undergraduate students in my course on star formation and the ISM to learn material at a graduate level. By valuing the path to an answer as much as the answer itself, students learned that being able to tell me why their answer was wrong was as important as being right, and that they should consult me, classmates, textbooks, and the internet rather than leave a problem unattempted. Through my guidance, students were able to rise to this level and succeed.

As a professor at BU, I will use research projects to encourage students to grow and develop as scientists. Students will collect and analyze astronomical data, write and assess proposals, and select and debate science goals for the next decade of astronomy and space science to emphasize the diversity of skills needed to do research. Students will get experience in visual inspection and pattern finding, recording results, reading related popular science articles for context, and communicating their findings that will build on their individual strengths and challenge them to develop new core competencies that prepare them for the next steps in their careers.

As an ISM researcher, I am well prepared to teach to an audience of both space science and astronomy students at BU. Through my extensive teaching experience I have learned to tailor courses to meet goals of a wide range of audiences, from non-majors students (e.g., applying scientific reasoning to everyday experiences) to majors students (developing the ability to be self-directed problem solvers), and even incarcerated students as part of the BU prison education program (e.g., strengthening basic math skills). I am excited to design and teach courses that fully engage and challenge BU students, from astrophysical fluids and plasmas to observational astrochemistry that connects measurements of solar wind and planetary atmospheres to the makeup of disks and interstellar clouds.

**Mentoring:** In contrast to teaching, I believe the longer-term nature of mentoring means student success depends as much on interactions outside of classroom as inside of it. In mentoring students, I have worked to maintain this balance by focusing both on research skills (including reading papers, giving presentations, and choosing a career path) and holistic professional development (including discussions of work-life balance, mental health resources, and how to combat impostor syndrome). As an advisor at BU, my students will be a priority in my schedule, and I will work to build a relationship where they are comfortable discussing their needs for success, not just as a research student in my group, but as a student and in their life outside of school.

My mentors have taught me that an important part of success is learning the steps and skills needed to thrive not just as a student but far beyond. As a result, I make sure to give students experience with the full research process: not only data analysis, but proposal writing, data acquisition, and communicating results to peers and the public. I also work closely with students to design research projects to complement their strengths and interests (for example in coding or chemistry), so that they take full ownership of their work. Ultimately, I see my role as a mentor not to be the single point of support for my students, but to be a person who connects them with a larger professional network of training, research expertise, personal role models, and sources of encouragement that can most completely meet their needs.