

## **My Goals and Interests in Astronomy**

As a person deeply interested in pursuing astronomy research, my primary goal for this course is to build a strong foundational understanding of the tools and techniques used in modern astronomy. I aim to become proficient in Python for data analysis and capable of modeling astronomical processes with confidence. In addition to technical skills, I am eager to develop complementary competencies such as writing research proposals, crafting effective CVs, and improving scientific communication.

By completing this course, I hope to acquire the adaptability and expertise needed to contribute meaningfully to research projects. I believe this experience will not only prepare me for formal research opportunities but also provide a solid foundation for future academic pursuits.

As a biologist my interests in astronomy are centered around the fundamental questions of the cosmos. I am particularly fascinated by cosmology, dark matter, black holes, and the origin and evolution of the universe. Topics such as the Big Bang and cosmic inflation, the mysteries of dark energy and dark matter, and the role of black holes in galaxy formation are of special interest to me. While my primary focus lies in high-energy and theoretical astrophysics, I am also open to exploring other areas such as exoplanetary science and observational techniques.

Through this course, I hope to engage with mentors and peers who share similar passions and to investigate these topics from a research-oriented perspective. Ultimately, I see this course as a stepping stone toward a career in data science, equipping me with both the knowledge and the practical skills to thrive in the field.