College of Arts & Sciences
Astrophysics, BS

Broad Learning Goals

A. *Physics knowledge.* To provide students will the basic foundation in physics, and in the scientific method (especially the interplay of theory and experiment), and to motivate scientific enthusiasm and curiosity and the joy of learning.

B. *Problem solving skills.* To provide students with the tools needed to analyze problems, apply mathematical formalism and experimentation, and synthesize ideas.

C. Employment and technical skills. To provide the students with technical skills necessary for successful careers in physics/astronomy and related fields. These include mathematic, computers, electronics and devices, and communication skills (oral and written).

Student Learning Outcomes

A1. Students will demonstrate an understanding of concepts of physics.

A2. Students will show understanding of the interplay between theory and experiment.

A3. Students exhibit curiosity and enthusiasm for learning science.

B1. Students will demonstrate an ability to analyze problems.

B2. Students will demonstrate mathematical ability (in areas such as integration, differential equations, linear algebra and vector calculus) in solving problems.

B3. Students will successfully carry out experiments to arrive at scientific results.

C1. Students will successfully apply computing tools to problems.

C2. Students will communicate well, orally and in writing, in a scientific context.

C3 Students will be able to use laboratory devices and electronics in scientific applications.