

PHYSICS TEACHING GRADES 6-12 CERTIFICATE (BA)

Program Mission

The mission of the Physics Program is to foster curiosity about the laws governing the physical world, enlighten students in critical thinking, and instruct them on applying the scientific method. Graduates of the program are prepared for careers in physics and physics-related fields, or the pursuit of advanced degrees. Graduates can pursue advanced degrees in diverse fields, including physics, medicine, teaching, engineering, or law.

Program Outcomes

1. Graduates will have conceptual knowledge of physics within the framework of a liberal arts education.
2. Graduates will be proficient in fundamental laboratory skills, including data analysis, and the use of instrumentation.
3. Graduates will be able to access, interpret, and utilize scientific materials as well as clearly and concisely communicate scientific results via oral and written reports.
4. Graduates will have the tools to succeed in a career in a physics-related fields, graduate studies in physics, teaching, or the pursuit of advanced degrees in medicine, teaching, or the law.
5. Graduates will have the interpersonal and professional skills to effectively work within teams and be project leader of teams of varied cultural and experiential backgrounds regardless of cultural differences.

Guidelines for Acceptance to a Physics & Astronomy Department Major

In order to ensure that students are on a successful academic trajectory, it is recommended that students who have not earned at least a C average in both PHYS-2100, Classical Physics I, and PHYS-2110, Classical Physics II, should not declare a major in the Physics & Astronomy Department. Students who have not achieved this minimum grade guideline but who still seek acceptance to a major in the Physics & Astronomy Department must meet with and receive approval from the Department Chair.

Program Requirements

Code	Title	Hours
Required Courses		
ASTR-1300	Sun & Solar System	4
PHYS-4457	Methods of Teaching Secondary Physics	2
CHEM-1200	General Chemistry I Lecture	3
CHEM-1210	General Chemistry II Lecture	3
CHEM-1201	General Chemistry I Laboratory	1
CHEM-1211	General Chemistry II Lab	1
NASC-1400	Earth Science	3
PHYS-2100 & PHYS-2101	Classical Physics I and Classical Physics I Lab	4
PHYS-2110 & PHYS-2111	Classical Physics II and Classical Physics II Lab	4
PHYS-3200	Relativity & Atomic Physics	3
PHYS-3201	Modern Physics Lab	1

PHYS-3210	Nuclear & Elementary Particle Physics	2
PHYS-3211	Modern Physics Lab II	1
PHYS-3500	Electronics	4
PHYS-COMP	Senior Comprehensive Exam	0
PHYS-4900	Physics Colloquium	0

Secondary Education Requirements

Complete the requirements for a B.A. in Secondary Education ¹

Total Hours **36**

¹ The secondary teacher is required to take education courses for a B.A. in Secondary Education to receive certification and should consult with the chair of the School of Education.