

College of SCIENCE
Department of PHYSICS
Minor in PHYSICS

For student date of entry under UG Catalog 2022-2023

All courses below have prerequisites or corequisites. These are listed below.

The Minor in Physics requires the completion of 21 credit hours.

I. Required courses (12 credit hours)

PHYS 2305 Foundations of Physics	4 <input type="checkbox"/>
PHYS 2306 Foundations of Physics	4 <input type="checkbox"/>
PHYS 3324 Modern Physics	4 <input type="checkbox"/>

Select 9 credit hours from the list below:

PHYS 2504 Mathematical Methods in Physics	3 <input type="checkbox"/>
PHYS 3355 Intermediate Mechanics	3 <input type="checkbox"/>
PHYS 3356 Intermediate Mechanics	3 <input type="checkbox"/>
PHYS 3405 Intermediate Electricity and Magnetism	3 <input type="checkbox"/>
PHYS 3406 Intermediate Electricity and Magnetism	3 <input type="checkbox"/>
PHYS 3655 Introduction to Astrophysics	3 <input type="checkbox"/>
PHYS 3656 Introduction to Astrophysics	3 <input type="checkbox"/>
PHYS 3704 Thermal Physics	3 <input type="checkbox"/>
PHYS 4254 Quantum Information Technologies	3 <input type="checkbox"/>
PHYS 4504 Introduction to Nuclear and Particle Physics	3 <input type="checkbox"/>
PHYS 4554 Introduction to Solid State Physics	3 <input type="checkbox"/>
PHYS 4564 Polymer Physics	3 <input type="checkbox"/>
PHYS 4574 Nanotechnology	3 <input type="checkbox"/>
PHYS 4614 Optics	3 <input type="checkbox"/>
PHYS 4654 Modern Cosmology	3 <input type="checkbox"/>
PHYS 4674 Introduction to General Relativity	3 <input type="checkbox"/>
PHYS 4714 Introduction to Biophysics	3 <input type="checkbox"/>
PHYS 4755 Intro to Computational Physics	3 <input type="checkbox"/>
PHYS 4774 Intro to Physics of Galaxies	3 <input type="checkbox"/>

Total 21 credit hours.

II. Minimum GPA

For the courses attempted by the student for this minor, the student's GPA must be 2.0 or higher.

III. Accepted Substitutions

- PHYS 3355: AOE 3154 (Astromechanics), or ESM 3124 (Dynamics II Analytical and 3-D Motion).
- PHYS 3356: ESM 3134 (Dynamics III Vibration and Control), or ESM 4114 (Nonlinear Dynamics and Chaos).
- PHYS 3405: ECE 3105 (Electromagnetic Fields).
- PHYS 3406: ECE 3106 (Electromagnetic Fields).

IV. Prerequisites and/or Corequisites

For the courses listed above, prerequisites and/or corequisites apply. These are detailed below. Please check with your advisor or consult the Undergraduate Course Catalog.

List of prerequisites and corequisites

PHYS 2504: Pre: 2305; Co: MATH 2214, MATH 2224, 2306

PHYS 3324: Pre: 2306; Co: MATH 2214, 2504

PHYS 3355: Pre: (MATH 1224 or MATH 2204 or MATH 2204H), (MATH 2214 or MATH 2214H), PHYS 2305, PHYS 2306, PHYS 2504

PHYS 3405: Pre: (MATH 2214 or MATH 2214H), PHYS 2305, PHYS 2306, PHYS 2504

PHYS 3704: Pre: 2306, 3324; Co: MATH 2214, 2504

PHYS 2305-2306: Pre: (MATH 1205 or MATH 1205H or MATH 1225) or (MATH 1206 or MATH 1206H or MATH 1226) for 2305; (MATH 1206 or MATH 1206H or MATH 1226), PHYS 2305 for 2306; Co: 2325 or (MATH 1206 or MATH 1206H or MATH 1226) for 2305

PHYS 3356: Pre: 3355 for 3356

PHYS 3406: Pre: 3405 for 3406

PHYS 3655: Pre: 2306

PHYS 3656: Pre: 2306

PHYS 4254: Pre: 2306, (MATH 2114 or MATH 2114H)

PHYS 4504: Co: 4456

PHYS 4554: Co: 4456

PHYS 4564: Pre: 2306

PHYS 4574: Pre: 2205, 2206 or 2305, 2306

PHYS 4614: Pre: 2306, MATH 2214, (MATH 2224 or MATH 2204 or MATH 2204H)

PHYS 4654: Pre: 3656

PHYS 4674: Pre: MATH 2214 or MATH 2214H or MATH 2514, PHYS 3356; Co: 3406

PHYS 4714: Pre: 2206 or 2306 or ISC 2106H

PHYS 4755: Pre: CS 1054 or CS 1064 or CS 1114 or ECE 1574 or AOE 2074 or ESM 2074

PHYS 4774: Pre: 3656