

## Physics BA

This program prepares students interested in physics and planning to enter professional schools in business, education, journalism, law, and medicine, and for liberal arts students desiring a strong background in physical science but with career objectives in other areas. The flexible program offers the opportunity for parallel studies in another discipline and/or pre-professional preparation. Students may choose to follow the standard B.A. or choose a specific area of emphasis: the Biophysics Concentration. Students wishing to pursue careers as professional physicists or graduate study in physics should seek the Bachelor of Science degree in physics.

**Course Availability: This is when courses are typically offered and is subject to change:**  
**F (Fall), S (Spring), SS (Summer) F = Fall, S = Spring, SS = Summer**

### Common Prerequisites (34 credits)

Complete all of the following with a grade of “C” or better (16 credits)

Course	Description	Pre-requisites	Term offered	Units
MAC 2311	Calculus I	Grade of “C” or higher in MAC 1147 or MAC 1140 + MAC 1114 (or placement score without prior coursework)	F, S, SS	4
MAC 2312	Calculus II	MAC 2311	F, S, SS	4
MAC 2313	Multivariable Calculus	MAC 2312	F, S, SS	4
MAP 2302	Differential Equations	MAC 2312	F, S, SS	3
PHY 1033	Physics Pathways	N/A	F,S	1

Complete all of the following with a grade of “C” or better (18 credits):

CHM 1045	General Chemistry I	“C” grade or higher in MAC 1105 or appropriate placement score (if no prior coursework in Math/Chem) Co-requisite: CHM 1045L	F, S, SS	3
CHM 1045L	General Chemistry I Lab	Co-requisite: CHM 1045	F, S, SS	1
CHM 1046	General Chemistry II	Pre-requisite: CHM 1045 Co-requisite: CHM 1046L	F, S, SS	3
CHM 1046L	General Chemistry II Lab	Co-requisite: CHM 1046	F, S, SS	1
PHY2048	Physics W/Calculus I	Pre- or Co-requisite: MAC2311 Co-requisite: PHY 2048L	F, S, SS	4
PHY2048L	General Physics Lab I	Co-requisite: PHY 2048	F, S, SS	1
PHY2049	Physics W/Calculus II	Pre- or Co-requisite: MAC2312 Pre-requisite : PHY 2048 Co-requisite: PHY 2049L	F, S, SS	4
PHY2049L	General Physics Lab II	Co-requisite: PHY 2049	F, S, SS	1

### Required Courses (31 credits)

Complete all of the following with a grade of “C” or better (13 credits)

Course	Description	Pre-requisites	Term offered	Units
PHY 3106	Modern Physics I	PHY 2049	F, S	3

PHY 3802L	Intermediate lab	Pre- or Co-requisite: PHY 3106	F, S	3
PHY 4221	Classical Mechanics I	PHY 2049, MAC 2313	F	4
PHY 4821L	Advanced Physics Lab	MAC 2313, PHY 3802L	F, S	3

Complete **one** of the following options with a grade of “C” or better (3 credits)

PHY 3513	Thermodynamics	PHY 2049, Pre or Co-requisite MAC 2313	F, S	3
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**OR**

PHZ 3113	Methods in Theoretical Physics	MAC 2313	S	3
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Complete 5 upper division (3000-4000 level) Physics electives courses with a grade of “C” or better (15 credits)

May include but not limited the courses below.

Course	Description	Pre-requisites	Term offered	Units
PHY 3107	Modern Physics II	PHY 3106	S	3
AST 3213	Modern Astrophysics	PHY 2048, PHY 2049	F	3
AST 3722	Observational Astronomy	PHY 2049, AST 3722L Recommended	S	3

Electives must be chosen in consultation with assigned academic advisor

Graduation Requirements:

- University Core Curriculum (UCC)
- Minimum of a 2.0 GPA
- 45 credits of Upper Division hours (3000-4000 level)
- 120 credit hours required for graduation
- Foreign Language requirement (FLENT/FLEX)
- Global Learning (GL) requirement
- Civic Literacy requirement

Students interested in Secondary Teacher Certification should contact the College of Arts, Sciences & Education Center for Advising & Student Success at (305) 348-2978.

Updated 3/2023 GL