

BACHELOR OF SCIENCE

Physics Major Courses 2019-2021

10 Courses; Minimum 30 credits required; 24 credits must be from SU

Course	Course Name	Grade	Credit
PHY53-154	Fundamentals of Physics I		
PHY53-164	Fundamentals of Physics II		
PHY53-214	Modern Physics		
PHY53-324	Electromagnetism I		
PHY53-334	Classical Mechanics I		
PHY53-424	Quantum Physics		
PHY53-872	Capstone Course		

Select three courses from the following:

PHY53-254	Observing the Universe		
PHY53-404	Electronics		
PHY53-413	Classical Mechanics II		
PHY53-433	Electromagnetism II		
PHY53-434	Statics		
PHY53-454	Math Methods in Physical Science II		
PHY53-463	Dynamics		
PHY53-473	Thermodynamics		

Required Supporting Courses*:		Grade	Credit
CHE51-103/1	General Chemistry I/Lab		
MAT52-754	Differential Equations I		

Take one of the following:

MAT52-154	Calculus I		
MAT52-164	Applied Multivariable Calculus I		

Take one of the following:

MAT52-254	Calculus II		
MAT52-264	Applied Multivariable Calculus II		

Take one of the following:

MAT52-354	Calculus III		
MAT52-364	Applied Multivariable Calculus III		

Select one of the following:

BIO50-123/1	Living Systems/Invest. Into Living Systems		
BIO50-133/1	Molecular and Population Genetics/Lab		

*Sufficient advanced mathematics for a mathematics minor is highly recommended

Courses from Required Supporting Courses may be used in the E&B section.

General Education Requirements

At least 30 total credits required; minimum 3 credits per requirement.

General Education - Part I

Take one of the following first semester seminars:

UST05-014	First Year Seminar		
UST05-214	Advanced Entry Seminar		

Foreign Language (three semesters of the same language)

Social Justice Course (may double count with any requirement):

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Two Fitness/Recreational Activity courses (must be different topics):

General Education - Part II: Exploration & Breadth (6 total courses)

PHY53-XXX courses cannot be used to satisfy Exploration & Breadth requirements.

Select one course from each of the four following areas:

Humanities:

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Natural Sciences:

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Social Sciences:

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Fine Arts:

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Select one additional course from TWO of the four areas: Humanities, Natural Science, Social Science and Fine Arts. Neither course may come from the department (3 digit prefix) used above. EX: If you took PSY33-104 Principles of Psychology as a social science, you may not select another PSY33-XXX course to apply in this section.

*Public Speaking, College Writing and Creative Writing courses may not count in E&B.

University Graduation Requirements:

Minimum of 127 credits: _____

Cumulative GPA > 2.0 _____

GPA > 2.0 for Major and/or Areas of Concentration _____

All grades C- or higher in major/minor/core? _____

At least 64 credits completed at Southwestern _____

No more than 56 credits of any 5 digit prefix _____

Major credits completed (min 30 required) _____

60% of Major courses completed at Southwestern (24cr) _____

Gen Ed has minimum of 30 credits _____

Minor (optional):

Minimum 18 credits _____

Minimum of 12 credits taken at Southwestern _____

Minimum 2.0 minor courses CGPA _____

Other:

Degree Audit Completed (Due one year before grad date) _____

Grad Application Submitted (Due start of final semester) _____

Approved to be part time in last semester? _____