



COLLEGE OF LETTERS AND SCIENCES Major Planning Guide
PHYSICS MAJOR with Secondary School Licensure (BSE), Bachelor of Science – minor required
 Four-year plan

Not an official document. Refer to Advising Report for full requirements.
 Sample Advising Reports available on-line at <http://www.uww.edu/registrar/ars/index.html>

Major Planning Guides are sample programs which illustrate the type of curriculum a student will take to complete the degree in 4 years.

All students must complete a minimum of 120 credits including

- 1) at least 32 units of general education, including specific GenEd courses, as well as approved math and science, physical education and elective courses.
- 2) requirements for the BA or BS degree
- 3) requirements for the major and for the minor (an approved minor is required for this major)

*ACT/SAT scores determine which Math and English course is appropriate for you. Refer to your AR for this information and then adjust this schedule accordingly. The Planning Guide begins with the most common placement for this major, Calculus and Analytical Geometry 1.

**The Bachelor of Science requires two lab sciences and 5 credits of advanced math or 3 of math and 3 of computer science.

The following table represents a typical 4-year plan for a student intending to teach high school physics. This 4-year plan fulfills the requirements for a Bachelor of Science, a Physics major and a Mathematics minor, including licensure, as well as the General Education courses required by the University for graduation. Other minors are also available. You may wish to view a table of course requirements to compare the physics coursework required for each of the four emphases of the physics major.

Courses in **bold** indicate specific courses that must be completed for the major. Courses in **blue** type are courses that must be completed for licensure. Other courses such as GenEd Courses or major/minor electives can be selected from a number of course choices.

Freshman Year	
PHYSCS 180 Physics for Scientists and Engineers I - 5 units	PHYSCS 181 Physics for Scientists and Engineers II - 5 units
PHYSCS 190 Frontiers of Engineering and Physics - 1 unit	MATH 254 Calculus and Analytic Geometry II - 5 units
MATH 253 Calculus and Analytic Geometry I - 5 units	GenEd 110 World of the Arts - 3 units
Intrauniv 104 - Freshman Seminar - 1 unit	English 102* Freshman English - 3 units
English 101* Freshman English - 3 units	
Semester 1: 15 units	Semester 2: 16 units
Summer 1st year	
Biology 214 Ecology and Society - 3 units	
Speech 110 Fundamentals of Speech - 3 units	
PEGRNL 192 Personal Health and Fitness - 1 unit	
Summer 1: 6 units	
Sophomore Year	
PHYSCS 190 Frontiers of Engineering and Physics - 1 unit	PHYSCS 310 Mechanics: Dynamics - 3 units
PHYSCS 305 Mechanics: Statics - 3 units	PHYSCS 330 Electronics - 3 units
PHYSCS 324 Methods of Theoretical Physics - 3 units	PHYSCS 331 Electronics Laboratory - 1 unit
MATH 255 Calculus and Analytic Geometry III - 3 units	MATH 280 Discrete Mathematics - 3 units
GenEd 130 Individual and Society - 3 units	English 370 Adv Composition/English 372 Technical Writing - 3 units
GenEd 120 or 140 Global or Historical Perspectives - 3 units	SPECED 205 Psychology of the Exceptional Child - 3 units
Semester 1: 16 units	Semester 2: 16 units
Summer 2nd year	
EDFOUND 212 Educational Psychology - 3 units	
EDFOUND 243 Foundations of Education in a Pluralistic Society - 3 units	
EDFNDPRC 210 Introduction to Education and Teaching - 3 units	
Summer 2: 9 units	

Junior Year	
PHYSICS 489 Senior Seminar - 2 units	PHYSICS 325 Classical Electromagnetism - 3 units
PHYSICS 221 Intermediate Laboratory - 2 units	PHYSICS 344 Modern Physics - 4 units
MATH 359 Probability & Statistics for Teachers - 3 units	CompSci 347 - Scientific Computing - 3 units
MATH 355 Matrices and Linear Algebra - 3 units	MATH 353 Geometry - 5 units
MATH 361 Differential Equations - 3 units	
GenEd 390 World of Ideas - 3 units	
Semester 1: 16 units	Semester 2: 15 units
Summer 3rd year	
Electives - 6 units	
Summer 3: 6 units	
Senior Year	
SECNDED 466 Literacy Strategies for Content-Area Teachers - 3 units	CIFLD 414 Directed Teaching-Secondary - 12 units
CLFLD 402 Directed Teaching - Alternative Placement Middle School - 2 units	
CIFLD 492 Field Study - 3 units	
EDFOUND 425 Measurement and Evaluation - 3 units	
SECNDED 429 Methods of Teaching Science - 3 units	
SECNDED 428 Math Methods - 3 units	
Semester 1: 17 units	Semester 2: 12 units

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Department Website: <http://www.uww.edu/cls/physics>