

BACHELOR OF ARTS IN PHYSICS

Minimum requirements for the B.A. degree in Physics with a minor in mathematics

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
General Education Requirements		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Arts and Humanities (6 s.h.)		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h. met with courses in the major)		
Social Science (6 s.h.)		
Gen Ed Electives for 6 s.h. satisfied by the NS courses in the major		
CMST 1545	Communication Foundations	3
Major Requirements		
Physics Courses:		
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory	5
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory	4
PHYS 3741	Electromagnetic Field Theory 1	3
PHYS 4805	Undergraduate Physics Research	3
Physics upper division Elective		
Mathematics Courses:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
Minor Course:		
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor if desired.		
Other courses:		
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
Electives:		
21 additional hours of upper division electives and 11 hours of electives at any level are required		
Total Semester Hours		120-122

Year 1		
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1 (P, NS)	5
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4
MATH 1571	Calculus 1 (P)	4
Semester Hours		17-19
Spring		
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 (P, NS)	5
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
MATH 1572	Calculus 2 (P)	4
CMST 1545	Communication Foundations	3
Semester Hours		16
Year 2		
Fall		
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory (P)	5
MATH 2673	Calculus 3 (P)	4
FNLG 1550	Elementary Foreign Language	4
ENGL 1551	Writing 2	3
Semester Hours		16
Spring		
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
MATH 3705	Differential Equations (P)	3
FNLG 2600	Intermediate Foreign Language	4
Arts & Humanities GER Domain		
Semester Hours		14
Year 3		
Fall		
PHYS 3703	Classical Mechanics and Dynamics (P)	4
PHYS 3741	Electromagnetic Field Theory 1 (P)	3
Social Sciences GER Domain		
Upper Division Math (P)		
Semester Hours		13
Spring		
Arts & Humanities GER Domain		
Electives (any)		
Physics upper division Elective		
Social Sciences GER Domain		
Semester Hours		15
Year 4		
Fall		
PHYS 4805	Undergraduate Physics Research (Capstone, P)	3
Electives (any)		
		3

Electives (Upper Division)	8
Semester Hours	14
Spring	
Electives (any)	3
Electives (Upper Division)	12
Semester Hours	15
Total Semester Hours	120-122