PHYSICS MAJOR (BS)

Department website (https://www.uwp.edu/learn/programs/physics.cfm)

1. Students will demonstrate scientifically literate in the foundations of physics, both theoretical and practical
2. Students will be able to take data in either a laboratory experiment or computer simulation, analyze and present the data coherently in a written format, and draw from the analysis a convincing conclusion based upon the principles of the scientific method.
3. Students will have ave mastered the tools of modern physics, mathematical, computational, and experimental, and developed quantitative, analytic, and critical thinking skills to apply the principles of physical theory to the solution of complex problems.
4. Students will be able to communicate in a professional, lucid manner the results and analysis of their own or other research and address questions effectively on the topic of their work in a scientific seminar or report format.
5. Student will have mastered mastered the methods of modern scientific exploration at an undergraduate level, engaging in continual self-improvement to prepare fully for postgraduate studies or industrial vocation.

Requirements for the Physics Major

To be eligible for entrance into the physics major students must have successfully completed MATH 221 Calculus and Analytic Geometry I, MATH 222 Calculus and Analytic Geometry II and PHYS 201 General Physics I, PHYS 202 General Physics II with a grade of C or better in each, or at the discretion of the Department.

At least 15 credits of upper level courses must be completed at UW-Parkside.

Code	Title	Credits
College of Natural and Health Sciences requirement		
New entering students, and transfer students with less than 30 college credits, choosing a major in the College of Natural and Health Sciences are required to take this course.		
UWP 101	First Year Seminar: Natural and Health Sciences	1
Required Core Courses		
PHYS 201	General Physics I	5
PHYS 202	General Physics II	5
PHYS 205	Modern Physics	3
PHYS 241	Scientific Programming	3
PHYS 295	Physics Research Seminar I	1
PHYS 297	Physics Research Seminar II	1
PHYS 301	Classical Mechanics	4
PHYS 302	Electricity and Magnetism	4
PHYS 303	Computational Physics	3
PHYS 306	Advanced Experiments in Physics	3
PHYS 403	Thermodynamics	3
PHYS 413	Statistical Mechanics	3
PHYS 441	Quantum Physics	4
PHYS 495	Senior Seminar	2
PHYS 401	Mathematical Methods of Physics	3
or MATH 401	Applied Mathematics	
Required Core Courses Subtotal		48
Required Support Courses		
MATH 221	Calculus and Analytic Geometry I	5
MATH 222	Calculus and Analytic Geometry II	5
MATH 223	Calculus and Analytic Geometry III	5
MATH 301	Linear Algebra	4
MATH 317	Differential Equations and their Applications	4
Required Support Courses Subtotal		23
Total Credits		**71**

Students planning graduate work in physics will generally take more than the minimum number of credit hours in physics and additional mathematics courses. Reading proficiency (equivalent to about two years of study at the college level) in one foreign language is also recommended for such students.

General University Degree Requirements (Bachelor's Degree)

In addition to individual program requirements, students must also fulfill the following requirements:

Requirement	Credits
Skills	7-8
General Education	36
Foreign Language**	6-8
Ethnic Diversity	3
Total	52-55

** Transfer students in sustainable management, and health information management and technology collaborative, online degree-completion programs, the business management online degree-completion program, and the flexible option degree-completion program will be exempt from the university's foreign language requirement. See appropriate academic section for further information.

Skills Requirement (https://catalog.uwp.edu/policies/#skills)

Code	Title	Credits
Reading and Writing		
ENGL 101	Composition and Reading	3
Computational Skills		
Select one of the following:		4-5
MATH 102	Quantitative Reasoning	
MATH 103	Elementary Statistics	
MATH 104	College Mathematics with Applications	
MATH 111	College Algebra I	
Total Credits		**7-8**

General Education (https://catalog.uwp.edu/policies/#general)

- General Education Course List (https://catalog.uwp.edu/programs/general-education-program/#coursestext)

Foreign Language (https://catalog.uwp.edu/policies/#language)

Ethnic Diversity (https://catalog.uwp.edu/policies/#ethnic)

Degree Requirements

Requirement	Credits
Minimum Total Credits	120
Upper Level Credits (300 level or above)	36
Residency	30

Cumulative Degree GPA: 2.0 minimum