

# PHYSICS

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The Department of Physics offers several programs leading to the baccalaureate degree with a major in physics. The course structure recommended by the department is essentially identical during the first two years of all programs so that a revision in a student's plan need not involve any loss of time.

The Bachelor of Science degree in physics involves the greatest depth in physics and mathematics. This program prepares the student for employment in a technical position upon graduation and also provides a solid foundation for entrance into a graduate program in physics or other technical field.

In addition to the 3/2 arrangement with Penn State, Millersville has three other cooperative programs. One of these is a 4/2 program with Penn State. A student studies for four years at Millersville and earns a B.S. degree in physics. After transferring to Penn State, in two years the student earns a master's degree from the Department of Engineering Science and Mechanics. In practice, it is possible to complete this program in less than two years. Up to six undergraduate credits at the 400 level in physics or mathematics may be transferred as graduate credit towards the master's degree at Penn State. Summer research programs at Penn State are also available and can generate graduate credit in this program. Consequently a student can finish the graduate portion of this program in a year and a half.

The B.S. Ed. program in secondary education prepares students for careers in precollege teaching, providing certification in physics.

The cooperative education program in physics is an optional arrangement whereby students combine practical on-the-job experience with their formal classroom instruction. After the first year, the co-op program is available to all physics majors who satisfy the departmental admission requirements. For more information, see Cooperative Education in the Special Academic Opportunities (<https://catalog.millersville.edu/undergraduate/special-academic-opportunities/>) section.

Outstanding students majoring in physics may pursue departmental honors during their senior year. Participation in the departmental honors program is highly selective and offers students in each of our major programs an opportunity to strengthen their background in physics and to work closely with a faculty mentor on an extended research project. General information on departmental honors is found in the Special Academic Opportunities (<https://catalog.millersville.edu/undergraduate/special-academic-opportunities/>) section of this catalog. Specific requirements for honors in each of our major programs are available from the department chairperson.

Two minor programs are also available for students who do not elect to major in physics. The physics minor offers students an exposure to physics through the intermediate level of our major program. In addition, there is also available an interdisciplinary minor in physics and earth sciences.

The department has prepared a student handbook which provides more detailed information on our programs, faculty and resources. This handbook, as well as additional information on any of the above programs, is available from the physics department