

Physics Education Majors checklist
Bachelor of Science in Physics and Certification in Physics Teaching

For graduation, you need to satisfy the following requirements. This checklist summarizes some of the information in the IUPUI Bulletin (<http://bulletin.iupui.edu>). **Please consult with your advisor regularly to be sure you are meeting all graduation requirements.**

General Education (16 credit hours)*

- SCI I120 Windows on Science (1 cr.)
- ENG W131 or ENG W140 English Composition I (3 cr.) Choice: _____
- Second composition course, e.g., ENG W132 or TCM 320 (3 cr.) Choice: _____
- COMM R110 Fundamentals of Speech Communication (3 cr.)
- HIST H114 History of Western Civilization II (3 cr.)
- List C course. (See the bulletin for a complete list of options.) (3 cr.) Choice: _____

Mathematics and Computer Science (27+ credit hours)

- MATH 165 Analytic Geometry and Calculus I (4 cr.)
- MATH 166 Analytic Geometry and Calculus II (4 cr.)
- MATH 171 Multidimensional Mathematics (3 cr.)
- MATH 261 Multivariate Calculus (4 cr.)
- MATH 266 Ordinary Differential Equations (3 cr.)
- MATH elective 1 (300-level or above) Choice: _____
- MATH elective 2 (300-level or above) Choice: _____
- Computer science elective, e.g., CSCI-N305, CSCI-N331, or CSCI 230 Choice: _____

Science courses outside physics (18 or 20 credit hours, all courses with labs)

- CHEM C105 and CHEM C125 Principles of Chemistry I and Lab (3 cr. / 2 cr.)
- CHEM C106 and CHEM C126 Principles of Chemistry II and Lab (3 cr. / 2 cr.)
- Science elective sequence (either BIOL K101 and BIOL K103 or GEOL G109/G119 and GEOL G110/G120) Choices: _____

Physics courses (27 credit hours)#

- PHYS 152 Mechanics (4 cr.)
- PHYS 251 Heat, Electricity, and Optics (5 cr.)
- PHYS 300 Introduction to Elementary Mathematical Physics (3 cr.)
- PHYS 310 Intermediate Mechanics (4 cr.)
- PHYS 330 Intermediate Electrodynamics (3 cr.)
- PHYS 342 Modern Physics (3 cr.)
- PHYS 353 Electronics Laboratory (2 cr.)
- PHYS 442 Quantum Mechanics (3 cr.) Choice: _____

Notes

*Six credit hours of School of Science general education requirements are fulfilled by EDUC courses.

#The physics capstone experience requirement is satisfied by EDUC M480 Student Teaching.

Education (40 to 43 credit hours)

Students begin the application process to the Teacher Education Program as sophomores, ~8 months prior to the semester they wish to begin. The Praxis I exam must be taken 6 weeks before the application deadline. Application deadlines are Feb 7 to start in Fall, and September 7 to start in Spring. Ideally, EDUC H341 is taken during the semester the student applies to the Teacher Education Program.

For more information, see <http://education.iupui.edu/soe/applying/undergraduate/sublttl/index.aspx>.

<input type="checkbox"/> EDUC F200 Examining Self as a Teacher (3 cr.) (<i>Optional</i>)	
<input type="checkbox"/> EDUC H341 American Culture and Education (<i>Note: Satisfies the List H requirement.</i>)* ⁺ (3 cr.)	
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<input type="checkbox"/> EDUC M322 Diversity and Learning: Reaching Every Adolescent (<i>Note: Satisfies the List S req.</i>)* (6 cr.)	Block I
<input type="checkbox"/> EDUC M403 Field Experience (1 cr.)	Block I
<input type="checkbox"/> EDUC M469 Content Area Literacy (3 cr.)	Block I
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<input type="checkbox"/> EDUC K306 Teaching Students with Special Needs in Secondary Classrooms (3 cr.)	Block IIa
<input type="checkbox"/> EDUC M404 Field Experience: Middle School (0 cr.)	Block IIa
<input type="checkbox"/> EDUC S420 Teaching/Learning in the Middle School (3 cr.)	Block IIa
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<input type="checkbox"/> EDUC M446 Methods of Teaching Senior High/Junior High/Middle School Science (3 cr.)	Block IIb+
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<input type="checkbox"/> EDUC S430 Teaching/Learning in the High School (3 cr.)	Block III
<input type="checkbox"/> EDUC M405 Field Experience (0 cr.)	Block III
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<input type="checkbox"/> EDUC M451 Student Teaching in Middle School (8 cr.)	Student Teaching
<input type="checkbox"/> EDUC M480 Student Teaching in High School# (8 cr.)	Student Teaching

Other Requirements

- Total credit hours: minimum 128.
- IUPUI Residency: minimum 32 credit hours at the 300-level and above.
- Physics Residency: minimum 12 credit hours and four courses at IUPUI.
- Good academic standing for Teacher Education Program (minimum GPA 2.5).
- Check rules regarding overlapping courses, disallowed courses, correspondence courses, etc., in the IUPUI School of Science Bulletin under Undergraduate Programs, Baccalaureate Degree.

Notes

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#: The physics capstone experience requirement is satisfied by EDUC M480 Student Teaching.

+: Block IIb is only offered in the Spring semester; students take Block IIb either with Block IIa or with Block III.