

Physics — ABM

Accelerated Bachelor's/Master's Curriculum for Physics

The Physics Accelerated Bachelor's/Master's Program (ABM) offers outstanding students the opportunity to earn both the bachelor's and master's degree in less time and at less cost than usual. Outstanding students will have the opportunity to explore the prospects for graduate study, engage with graduate faculty, and deepen their understanding of physics. The program will foster the interaction between undergraduate and graduate physics programs at Auburn. The ABM program allows these exceptional students to count up to 9 hours toward both the bachelor's and master's degrees.

The Bachelor of Science in Physics undergraduate major can lead to a Master of Science in Physics (thesis or non-thesis option) in the ABM track. Please see the College of Science and Mathematics website for additional information.

Below is a chart of all the approved courses that can be taken in the ABM program and what course that replaces at the undergraduate level.

| Code | Title | Hours |
|-----------|--|-------|
| PHYS 6100 | Applications of Quantum Mechanics (Replaces PHYS 6100 Applications of Quantum Mechanics) | 3 |
| PHYS 6500 | Fundamentals of Physics (Replaces PHYS 5500 Fundamentals of Physics) | 3 |
| PHYS 6600 | Frontiers of Physics (Replaces PHYS 5600 Frontiers of Physics) | 3 |
| PHYS 6610 | Introduction to Solid State Physics (Replaces PHYS 5610 Introduction to Solid State Physics) | 3 |
| PHYS 6620 | Survey of Plasma Physics (Replaces PHYS 5620 Survey of Plasma Physics) | 3 |

Senior Year for student in ABM - Physics

Courses marked with an asterisk are those that can be substituted by graduate level courses by students enrolled in the ABM program to meet nine undergraduate hours during their senior year and nine graduate hours to be used toward their graduate degree.

Senior

| Fall | Hours | Spring | Hours |
|--|-------|----------------------------|-------|
| PHYS 4200 Fundamental Experiments in Physics | | 2 *Professional Electives | 7 |
| *Professional Elective | | 3 *Physics Elective | 3 |
| *Electives | | 9 *Electives | 6 |
| | | UNIV 4AA0 Creed to Succeed | 0 |

Accelerated Master of Science in Physics (non-thesis)

Fifth Year

| Fall | Hours | Spring | Hours |
|---------------------------------------|-----------|--|-----------|
| PHYS 7100 Classical Mechanics | | 3 PHYS 7400 Statistical Physics | 3 |
| PHYS 7200 Electricity and Magnetism I | | 3 PHYS 7250 Electricity and Magnetism II | 3 |
| PHYS 7300 Quantum Mechanics I | | 3 PHYS 7350 Quantum Mechanics II | 3 |
| PHYS 7930 Directed Studies | | 1 PHYS 7950 Physics Colloquium | 1 |
| PHYS 7950 Physics Colloquium | | 1 | |
| | 11 | | 10 |

Total Hours: 21