

# University of Mary Washington

## Student Learning Outcomes for Physics

1. Students will demonstrate knowledge of fundamental laws of physics.
2. Students will demonstrate mathematical skills, using calculus, vector analysis, vector calculus, matrices, linear algebra and elements of statistics.
3. Students will comprehend theoretical problems and then identify approaches to solving them.
4. Students will think critically to synthesize outcomes of experiments and solutions to problems.
5. Students will have facility with key pieces of equipment for experiments in physics.
6. Students will communicate effectively via speaking and technical writing.
7. Students will have facility with various computer applications for analysis and presentation of technical results.
8. Students will read advanced textbooks and research papers independently.
9. Students will see connections between areas within physics, and between physics and other disciplines (e.g., mathematics, chemistry, etc.).
10. Students will work collaboratively with others on common projects.