## BACHELOR OF SCIENCE IN PHYSICS

The School of Physics offers three undergraduate degrees, the Bachelor of Science in Physics, the Bachelor of Science in Applied Physics and the Bachelor of Science in Astrophysics. The basis of the Bachelor of Science in Physics degree is the traditional preparation of a student for graduate study in physics.

The undergraduate physics degree is broad based with an initial emphasis on core topics such as classical and quantum mechanics, thermal physics, and electromagnetism. This is followed by a range of more specialized courses including atomic, solid state, optical, nuclear and particle physics; biophysics, astrophysics, computational physics and relativity. Students should contact their academic advisor for assistance in planning programs of study with emphasis directed toward a particular objective. Since some students who earn a degree in physics have transferred from other disciplines, the School has planned its degree programs to enable most students to transfer into physics with little or no loss of credit.

Undergraduate research is a cornerstone of the Physics experience at Georgia Tech with approximately 80% of our majors completing at least one semester of undergraduate research before graduation. Students are encouraged to get involved in research from their very first year, working alongside leading faculty on cutting-edge projects. These experiences can lead to authorship on published research papers and opportunities to present findings at national and international conferences. Undergraduate research can be taken for academic credit, and paid research positions are also available, providing valuable experience and professional development. Students with at least 3 semesters of undergraduate research are eligible for the Research Option designation.

A total of 120 credit hours (exclusive of wellness) and a grade-point average of at least 2.0 in physics courses numbered 3000 and higher are requisites for the bachelor's degree in physics.

The Concentration in Astrophysics will be phased out after the 2025-26 academic year. Students interested in Astrophysics should enroll in one of the Astrophysics Major or Minor programs.

Physics: Undergraduate Information

- · Bachelor of Science in Physics General
- Bachelor of Science in Physics Astrophysics (will be phased out after the 2025-26 academic year; students interested in Astrophysics should enroll in either the Astrophysics Major or Minor)
- · Bachelor of Science in Physics Business Option
- · Bachelor of Science in Physics Physics of Living Systems

## **Research Option in Physics**

The Research Option is intended for students who seek a concentrated research experience, culminating in an undergraduate thesis, integrated into their undergraduate studies in Physics. The purpose of this program is to prepare students who plan to go on to graduate research after their BS degree. This option includes three or four semesters of focused research in the student's junior and senior years. Students who complete this option receive a designation on their transcript. For an undergraduate

to fulfill the Research Option in the School of Physics, the student must fulfill the following requirements:

Code	Title	Credit Hours
PHYS 4698	Undergraduate Research Assistantship <sup>1</sup>	9
or PHYS 4699ndergraduate Research		
LMC 4701	Undergraduate Research Proposal Writing $^2$	1
LMC 4702	Undergraduate Research Thesis Writing $^{3}$	1
Research Th	esis <sup>4</sup>	
Total Credit Hours		11

<sup>1</sup> At least three credits must be PHYS 4699.

- <sup>2</sup> LMC 4701: Undergraduate Research Proposal Writing -typically taken during the first or second semester of research.
- <sup>3</sup> LMC 4702 Undergraduate Research Thesis Writing -taken during the term in which the thesis is completed.
- <sup>4</sup> Write and submit an undergraduate research thesis to the School of Physics based on the student's research that is approved by the student's research advisor.

For specific questions, students should contact their academic advisor in the School of Physics.

## **BS/MS OPTION**

The BS/MS Option allows eligible students to double count a maximum of 6 credit hours toward undergraduate and graduate requirements while still completing all other program requirements to earn both degrees.

To apply for the option, undergraduate Physics students (BS in Applied Physics or BS in Physics) must have at least 30 credit hours earned at Georgia Tech with an undergraduate GPA of 3.3 or higher, and fewer than 90 credits overall (including transfer credit).

The minimum GPA to graduate with an undergraduate degree in Applied Physics/Physics to continue to the MS in Physics program is 3.0. The minimum GPA for graduation with the MS in 2.7.

Students will need to consult with an advisor to indicate which courses are sharing with the graduate degree in DegreeWorks.