

PATHWAYS | PHYSICS

Bachelor of Science in Physics



COLLEGE OF
SCIENCES &
MATHEMATICS

COURSE SELECTION

FRESHMAN

- It is recommended that all physics majors take the Honors sequence, PHYS 1607 and 1617.
- Calculus can be taken as a co-requisite so that by the end of the freshman year you have had at least Calculus II.

SOPHOMORE

- You will continue your introduction to the basic concepts of physics in the Fall semester with PHYS 2200. In the spring you will begin to pursue the concepts of physics in greater depth in PHYS 2100, Intermediate Mechanics. These two courses are essential preparation for the more advanced courses to come.

JUNIOR

- The upper division 3000-4000 level physics classes will give you the opportunity to utilize your mathematical skills and to develop a deeper appreciation for physics. You will also choose a number of elective courses to help you prepare for success after graduation.

SENIOR

- This year is devoted almost entirely to electives in your major and/or in other areas of interest. There is room in the curriculum for electives that will ensure that you are well prepared for whatever career path you may choose upon graduation. You will have the opportunity to take some 5000-level physics courses.

ASK FOR ASSISTANCE

- Your physics faculty advisor will have a formal meeting with you once a semester, but they will be glad to meet with you at any time. You will also have a COSAM academic advisor to assist you. You are encouraged to seek guidance at all times but especially during this year of transition to University life.

- Beyond continuing to receive guidance from your Physics and COSAM advisors, you should explore undergraduate research opportunities. The faculty member supervising your research will become your third advisor.

- Formulate a plan for the professional electives required in the Physics curriculum. These courses are intended to be a coherent group of classes that will assist you in achieving your post-graduation goals.

- You should meet with your COSAM academic advisor to do a graduation check to be certain that you are on a path to graduate in 4 years.

- This year you will complete the plan of study for your professional electives, do a final graduation check, and begin either applying to graduate schools and/or seeking employment. Your advisors will be anxious to assist you in this process along with the Career Center (auburn.edu/career).

GAIN EXPERIENCE

- You are encouraged to join the Physics Department Family by joining and participating in the activities of the Auburn chapter of the Society of Physics Students (SPS). You will be welcome in a special room provided by the Physics Department for physics majors to study and to get to know one another.

- This is a good time to begin to explore undergraduate research opportunities in the Physics Department. Your physics advisor will be glad to help you in this process. Undergraduate research will provide valuable experience available in no other venue that will help you decide on an appropriate career path, and it is a lot of fun.

- Hopefully you have already begun to participate in undergraduate research activities. There will also be SPS activities in which you may take part, e.g., trips to SPS and Sigma Pi Sigma (the Physics Honor Society) meetings where you can meet physics students from other universities.

- Your undergraduate research project(s) will now be coming to a conclusion. You may be writing papers or becoming a co-author on papers submitted to professional, refereed journals. The Physics Department also has a weekly colloquium at which outstanding scientists from outside of Auburn come to tell us about their research. This provides an opportunity to truly broaden your professional horizons.

GET INVOLVED

- The Auburn chapter of SPS and the SPS room available to undergraduate physics majors will provide the opportunity for you to get involved in the life of the Physics Department.

- Students and faculty in the Physics Department are pursuing research projects in which they seek the answers to scientific questions at the forefront of knowledge. You are encouraged to get involved.

- This may be the year in which you explore summer opportunities away from Auburn such as Research Opportunities for Undergraduates sponsored by the National Science Foundation and/or internship opportunities at national government laboratories. Your physics faculty advisor and your physics Research Advisor will make you aware of these opportunities.

- Take advantage of the varied professional experiences of Physics Department Faculty to learn about various career options to help you make the best choice. Try to present a paper and/or attend a professional society meeting either in your undergraduate research area and/or a regional and national meetings of SPS.

CAREER PLANNING

AUBURN UNIVERSITY CAREER CENTER

303 MARY MARTIN HALL | [AUBURN.EDU/CAREER](http://auburn.edu/career)

The program provides opportunities for students to develop skills to be successful in a variety of areas. It is a flexible program that allows students to develop their own personal interests. Key skill areas in order to be successful include conceptual and analytical skills.

PHYSICIST

MINIMUM EDUCATION: M.S./PH.D.

ENTRY LEVEL SALARY RANGE: \$50.6K - \$109.1K

These are just three options out of many that physics majors pursue. For more career options be sure to check out "What Can I Do With a Major In..." on auburn.edu/career.

PHYSICIAN - GENERAL PRACTITIONER

MINIMUM EDUCATION: M.D./D.O.

ENTRY LEVEL SALARY RANGE: \$106.3K - \$176.1K

BIOPHYSICIST

MINIMUM EDUCATION: M.S./PH.D.

ENTRY LEVEL SALARY RANGE: \$50.1K - \$90.7K



Mary Martin Hall, home of the Auburn University Career Center

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