

Physics Department Summary

The Gustavus Adolphus College Physics Department in its curriculum, its student-centered research projects, and its co-curricular activities endeavors to fulfill the immediate and future needs and interests of a variety of students. For those students who enroll in the program to become physical scientists and engineers, we provide a comprehensive, unified, rigorous curriculum of courses, collaborative research, and mentoring that will prepare them to succeed in graduate and professional degree studies at institutions of high standing, and in flexible careers thereafter.

Some Facts about Physics at Gustavus:

- The Physics Department graduates 12 to 18 majors each year
 - This places Gustavus in about the top 10 to 13 undergraduate institutions in the U.S. for the number of physics graduates per year.
 - About 3/4 of physics alumni go on to graduate school in physics or engineering.
 - Additional students go on in other areas, such as medicine or law.
- The department has excellent facilities
 - The physics department is in F.W. Olin Hall, constructed in 1991.
 - The department has state-of-the art equipment for research and teaching. Much of this has been purchased using NSF grants in astronomy, optics, acoustics, nuclear physics, and electronics.
- The department has active chapters of The Society of Physics Students (SPS) and Sigma Pi Sigma
 - SPS has biweekly meetings with external speakers and students discussing research projects.
 - There are also weekly social events, such as basketball, volleyball, and bowling.
 - SPS also sponsors other events including picnics, camping, and volunteer work.
- Gustavus physics students are involved outside of classes
 - A large fraction of the students are involved in musical ensembles, sports, and other activities.
 - Many students are active in faculty-student research in areas such as optics, acoustics, applied physics, condensed matter physics, materials science, and computational physics.

After receiving their physics degree from Gustavus, students who enroll in a graduate program in physics or engineering generally obtain a research or teaching assistantship. These assistantships cover the cost for graduate school tuition, as well as paying the student a stipend. Thus there is often no cost for students who go to graduate school in physics or engineering.

Engineering with Physics Preparation:

The Gustavus Physics Department offers a variety of options for students who are interested in engineering. *Students in most areas of engineering take essentially the same series of classes as physics majors for the first 2-1/2 years. This means that students do not need to decide on their specialization early in their program.* Details on the curriculum can be found at: <http://physics.gustavus.edu/Curriculum.htm>

Possible Academic Paths:

- **B.A. / M.S.** Four years at Gustavus, followed by about two years at a graduate engineering program. *This is the most common engineering option for our students.*
 - The student receives a bachelor's degree in physics from Gustavus.
 - The student then enters a master's degree program at essentially any graduate engineering program. An assistantship will generally cover all graduate school expenses.
- **B.A. / B.S.** Three years at Gustavus, followed by about two years at the dual-degree institution (University of Minnesota, Minnesota State University – Mankato, and other programs).
 - The student receives a bachelor's degree in physics from Gustavus.
 - He or she also receives a bachelor's degree in engineering from University of Minnesota or Minnesota State University - Mankato.
- **B.A. / B.S. / M.S.** Three years at Gustavus, followed by about three years at University of Minnesota (biomedical, electrical or mechanical engineering only)
 - The student receives a bachelor's degree in physics from Gustavus
 - He or she also receives bachelor's and master's degrees in engineering from University of Minnesota.
- **B.S. Transfer:** Two years at Gustavus, followed by about two years at an engineering institution
 - The student receives a bachelor's degree from the engineering institution, with transfer of pre-engineering and general education credits.

For More Information, Contact:

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