The Physics Department at City College of San Francisco is actively seeking partnerships and support from community and industry leaders and foundations in order to sustain a modern, high-quality physics program at multiple campuses for thousands of students.

The CCSF Physics department is one of the largest two-year college physics departments in the country. Only 3% of Two year College Physics departments offer more than 16 sections of courses. The CCSF physics department currently offers over 60 lecture and laboratory sections serving over 1500 students per semester. Our students travel from all over the bay area, as well as all over the world to take advantage of our full service physics program.

We offer the bulk of our classes at the Ocean Campus but also support physics classes at the Mission Campus, South East Campus, Online, the Exploratorium and the upcoming China Town Campus which is due to open in Spring 2011. We also offer classes at night and on Saturdays.

We are proud of
- our nontraditional mix of students,
- our full service physics program
- our role in providing quality affordable science education,
- and the individual contact that each student receives from our 9 full time and 11 part-time physics instructors.

We are looking for partnerships and financial support to augment our $7,000 yearly supplies and equipment budget, so that we can maintain the high level of education that students receive through our program. Needs include:

- Our large lecture halls – S100 + S136 – are in desperate need of remodeling for technological upgrades as well as replacing outdated desks, old ripped wall hangings, and other environmental requirements to ensure students get the best experience in the classroom.
- Some of our lab facilities at the Ocean Campus have not been remodeled or updated in decades. We need to resolve this and ensure sufficient instructional equipment is available for all the students in the labs.
- The college currently has insufficient funds to support the expansion classes our department needs to serve all its students. Sample classes that we need include: high-demand bottleneck intro physics, classes that serve working students (evening and online), specialty classes that are required for physics majors.
- We have deferred replacing equipment. We are interested in a managed replacement plan for our computers, oscilloscopes, function generators, multi-meters and other high dollar items.
- We would like to provide internships, research opportunities, mentoring, scholarships, and sponsored lectures or field trips for students that are participating in our majors, physics club, mentoring program, and supplemental instruction
- We would like to remodel existing space to provide a student study/activity/tutoring area adjacent to the physics department.

Our department includes 9 full-time and 11 part-time instructors – who have professional work experience at companies including Bechtel, Coherent, and General Atomics, published research papers in many areas including nonlinear optics, superconductors, gravitation, and materials analysis and are graduates of U.C Davis, Princeton, University of Colorado, U.C. Santa Cruz, and San Francisco State.
Conceptual Physics – A conceptual introduction to physics. Emphasis on topics that lead to a better understanding of our technological society and physical environment.

Elementary Physics – Elementary physics, emphasizing problem solving in kinematics, forces, energy, momentum, fluids, and electricity. Serves as a preparatory class for Introductory Physics.

Introductory Physics – A two semester sequence required of premedical, biology, veterinary, physical therapy, and architecture.

Preparatory Physics – Elementary physics, emphasizing concepts and problem solving in kinematics, forces, energy, momentum, electricity, magnetism, vibrations and wave phenomena. Serves as a preparatory class for physics for scientists and engineers.

Physics for Scientists and Engineers – A four semester sequence required of physics, chemistry, and engineering majors.

Physical Science – A conceptual introduction to the physical sciences. Emphasis on topics which lead to a better understanding of our technological society and physical environment.

We serve 1300 students per semester, in 32 class sections. Our students are a mixture of:

- Physical Science and Engineering Majors
- Premedical and Life science majors
- General Education students
- Continuing education students

Some of our students’ stories:

Patrick Emelife completed his City College experience working as a chemistry tutor for the chemistry department and NIH Science Scholars Program, Math and Chemistry tutor for the EOPS program, and a Teacher’s Assistant in the Physics Department. He earned an Associate of Science in Chemistry with highest honors before transferring to Stanford University where he earned his BA in Human Biology. Patrick is currently enrolled in a MD program at the University of Pittsburgh School of Medicine.

"Upon graduating from high school, I did not gain admission to a University of California. I heard that students attending community colleges could transfer to California public universities, so I decided to take this path to earn my bachelor’s degree. Those rejection letters fueled my determination to make the best of my opportunity at CCSF. I was able to stay focused and earned a 4.0 GPA. I discovered that I enjoyed science and was able to participate in summer research via the NIH Science Scholars Program. CCSF has given me a rich and diverse learning experience, which has prepared me for my journey."

Jaime Garcia began at CCSF in 2003. During his first semester Jaime took a class called Physical Science was hooked into the idea of a science degree. He transferred to the Colorado School of Mines and majored in Petroleum Engineering. In November of 2010, an Australian oil and gas company, called Austin Exploration Limited, hired him to design a production plan for 50 wells in Kentucky. He was initially hired on a consulting basis and eventually became the manager of the Kentucky business unit.

"From the moment I started taking classes at CCSF, I knew it was going to be a long term investment in my career. I always believed in my potentials and in the outstanding educational level CCSF posses, especially the Physics and the Chemistry departments. I was able to find great support from my professors in these two departments, and definitely the courses in these departments helped to train my brain in a critical thinking manner. I will continue my education with a Master in Economics in 2011."