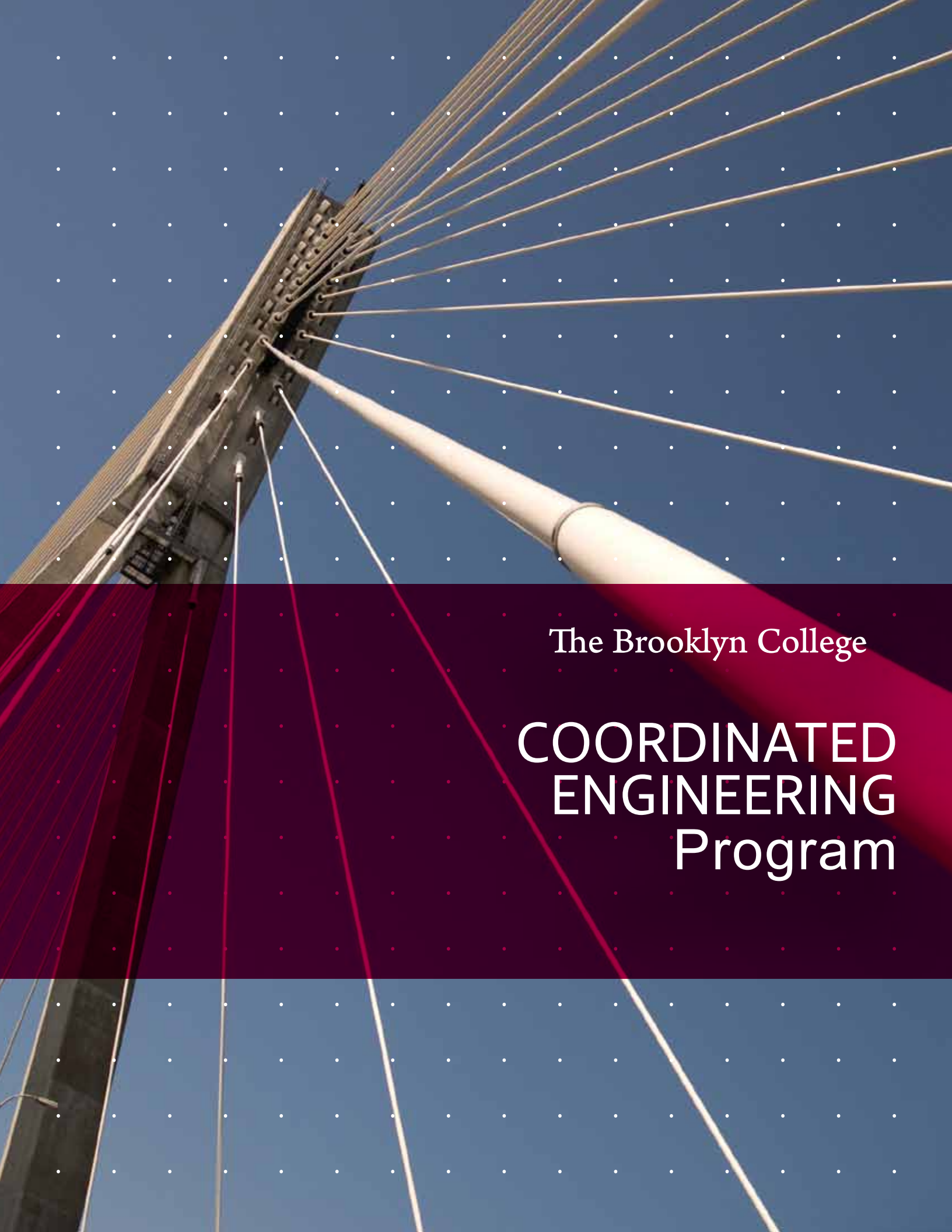
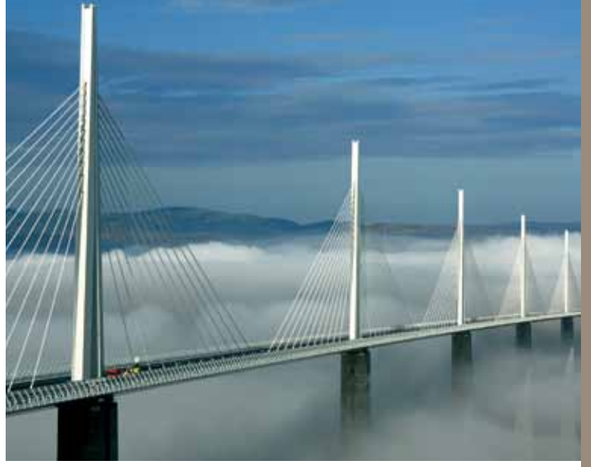


The Brooklyn College

# COORDINATED ENGINEERING Program



## Why study engineering?

**Engineering is one of America's fastest growing professions** because technology affects our day-to-day lives in countless ways. Any invention must be engineered before it can be used. Engineers have designed every building we enter, every high-tech medical device or tool we use, every car we drive, and every item large and small in the kitchen, office and garage.

**Engineers solve practical problems** from getting an astronaut home from outer space to designing a car seat safe enough for an infant.

**Engineers work in a wide range of fields**, including environmental protection, biotechnology, biomimetics, computer design, communications, robotics, aerospace, industrial chemistry and materials science, among others. They build and maintain systems through which technology and nature interact, such as solar and wind energy, emissions technology for cars and industry, and sensors to measure oxygen levels in large bodies of water.

**Engineering is one of the most rewarding professions.** A strong background in the humanities and social sciences helps engineers understand human needs. This convergence of engineering and liberal arts has practical implications in the marketplace. Engineers commonly rise to well-paid managerial positions in business, industry and government because they know how to apply quantitative analysis and the scientific method to issues in social and civic life.

**Engineering provides a sound preparation for other professional careers.** An engineering background in mathematics, science, computer science and design, combined with humanities and the social sciences, strengthens students' qualifications for other professions such as medicine, law and the financial industry.

**The Brooklyn College Coordinated Engineering Program,** run by the Department of Physics, offer two years of engineering study equivalent to the first two years at any engineering school. Students who maintain the required academic level are guaranteed transfer to one of the three coordinating schools—Tandon School of Engineering of New York University (NYU-Tandon), City College of New York or the College of Staten Island—to complete their bachelor's degree in engineering.

## Why begin your engineering education at Brooklyn College?

Brooklyn College Coordinated Engineering is close to home and offer courses of study that are the equivalent of the first two years at any engineering school. Program is small and provide supportive environments for students.

Different fields of engineering offered at Brooklyn College are:

**Chemical and Biomolecular**
**Civil and Urban**
**Computer**
**Electrical**
**Mechanical and Aerospace**

Annual tuition is about $7000—substantially lower than at most private engineering schools, where annual tuition may be as high as $60,000 to $70,000.

Coordinated engineering students who maintain the required academic standards are **guaranteed transfer** to one of three coordinating schools—NYU-Tandon School of Engineering, the City College School of Engineering, or the College of Staten Island Engineering Science Program—to complete their bachelor's degree in engineering.

Coordinated engineering students have also transferred to Stony Brook University, the University of Wisconsin, the University of Michigan, Cooper Union and the University of Arizona.

The Coordinated Engineering Program keeps students informed of rapid changes in the profession through the Engineering Club. The club invites working engineers to talk about their specialties and arranges visits to such facilities as Brookhaven National Laboratory, where cutting-edge research is being done.

With native speakers of over 100 languages on campus, Brooklyn College is a welcoming institution whose student body reflects the diversity of Brooklyn and the greater New York area. The college has an active Women's Center and numerous student clubs and activities.

IN THE SUMMER AND BETWEEN TERMS, THE STUDENTS ARE ENCOURAGED TO GAIN EXPERIENCE WORKING IN THE RESEARCH LABS IN THE PHYSICS, CHEMISTRY, COMPUTER SCIENCE AND BIOLOGY DEPARTMENTS.

## PROGRAM REQUIREMENTS

Coordinated engineering students are required to take at least 64 credits in engineering and the liberal arts. The coordinated engineering curriculum matches the first two years of study at most engineering schools throughout the country, and courses are guaranteed transferable to the three schools that participate in the Coordinated Engineering Program. Courses are also transferable to many other engineering programs. The course requirements include engineering mechanics, electrical circuit analysis and laboratory (seldom taught outside of engineering schools) as well as computer science courses such as advanced programming techniques, data structure and object-oriented programming. Chemistry, mathematics, calculus-based physics, modern physics and biology give coordinated engineering students a firm foundation for the advanced engineering courses given at Brooklyn College and the engineering school of transfer.

For students who enter the Coordinated Engineering Program but decide later not to pursue engineering, the program allows a smooth transition to any of the more than 70 undergraduate majors available at Brooklyn College.

## ADMISSION TO THE COORDINATED ENGINEERING PROGRAM

All students admitted to Brooklyn College can join this program. Prerequisite to join this program is a B or better grade in pre-calculus (MATH 1011) or AP Calculus in high school. Submit an application for admission as a freshman to CUNY indicating Brooklyn College as one of the choices. You may choose Physics as major.

Qualified students already enrolled including students in honors programs at Brooklyn College can join the Coordinated Engineering Program at any time.

Brooklyn College/CUNY application forms may be obtained online at **www.cuny.edu/admissions/apply.html**

## TUITION

The Brooklyn College Coordinated Engineering Program provides a superior education at a manageable cost.

Tuition for full-time students who are New York State residents is **$3,465 per semester.**

Tuition for full-time students who are not state resi-dents is **$620 per credit.**

Brooklyn College students who have completed the program and who transfer to NYU-Tandon School of Engineering will receive financial aid in terms of government grants, scholarships and loans for their final two years of study. Those who transfer to the Grove School of Engineering at City College or the College of Staten Island Engineering Science Program will continue to pay the similar tuition set by the CUNY.

## FOR MORE INFORMATION

To learn more about the Brooklyn College Coordinated Engineering program, please contact Mim Lal Nakarmi, professor of physics and director of the coordinated engineering program, at 718.951.5000, extension 2867, or by email: mlnakarmi@brooklyn.cuny.edu.

For more information, visit the Department website

**www.brooklyn.cuny.edu/physics**

and

**www.brooklyn.edu/physics/undergraduate/engineering/**