

## Thinking about science?

If you're ready for a challenge, you should investigate Carnegie Mellon - a university known as much for its dynamic, high achieving students as it is for its world-class programs and cutting-edge research. And if you think most colleges and universities offer the same kinds of programs, especially in the sciences, you'll find that a Carnegie Mellon education is unlike any other.

Carnegie Mellon offers innovative programs in the life and physical sciences through its Mellon College of Science (MCS).

"Will science in this millennium be different? The knowledge, the cutting edge discoveries and the tools you use will be different. But the life of a scientist will remain a life of acquiring new knowledge, tackling new problems and exploring new things."

*-The late Herbert Simon, Nobel Laureate and Carnegie Mellon Professor of Psychology and Computer Science*

## We're Preparing Scientists for the New Millennium

In the Mellon College of Science, we believe science is much more than chemistry experiments, math equations and microscopes. Science is about asking questions that don't have answers - and doing what it takes to find them.

It's about looking at problems in new ways and finding creative solutions. It's about working together and building new technologies that will advance science far into the future. Not only will you have a strong foundation in scientific principles and technology, but you'll learn how to do research from faculty who want to see you grow and succeed. You'll have incomparable opportunities to put those skills to work on your own and in teams with other science students. Our science education will prepare you for a lifetime of scientific discovery.

## The MCS Curriculum

We designed our curriculum to provide you with the skills, knowledge and training you'll need when you graduate:

- scientific principles
- technological and research skills
- practical experience
- team skills
- creative problem-solving skills
- access to the world beyond the classroom
- internships and summer jobs
- community involvement
- writing and communications skills

You'll explore each of the sciences as well as disciplines outside your major.

## Tailoring Your Education

MCS offers students tremendous opportunity for tailoring their education to meet individual professional objectives. Whether you target your degree to a particular field in your discipline via departmental options and concentrations (biochemistry, polymer science, computer science,

## Degrees and Programs

### Biological Sciences

Biochemistry  
Biophysics  
Biological Science & Psychology  
Cell Biology  
Computational Biology  
Developmental Biology  
Genetics  
Molecular Biology  
Neuroscience

### Chemistry

Biochemistry  
Colloids, Polymers and Surfaces  
Computational Chemistry  
Environmental Chemistry  
Management  
Material Chemistry  
Polymer Science

### Mathematical Sciences

Computational and Applied Mathematics  
Computational Finance  
Discrete Mathematics and Logic  
Mathematics  
Operations Research  
Statistics

### Physics

Applied Physics  
Astrophysics  
Biological Physics  
Chemical Physics  
Computational Physics

### Departmental and Intercollege Minors

Biological Sciences  
Chemistry  
Computational Finance  
Discrete Mathematics and Logic  
Environmental Science  
Health Care Policy and Management  
Mathematical Sciences  
Physics  
Scientific Computing

statistics, etc.), add a secondary major, minor or degree to your primary degree program, participate in honors programs or pursue a master's degree along with your bachelor's degree, MCS has much to offer you.

## Applying Your Education to Real Problems

Approximately 70 percent of the science undergraduates get involved in undergraduate research either at Carnegie Mellon or through internships. Here are some examples:

- A Biological Sciences major is working at GlaxoSmithKline in their information systems department and is pursuing her MBA.

- A student graduated with a BS in Chemistry and BS in Psychology, and is attending medical school. She had done research at the Pittsburgh Hillman Cancer Institute published her work in the *Journal of Clinical Oncology*.
- A Computational Finance major is now a Capital Markets Analyst with Lehman Brothers in New York, NY. His position followed an internship with Lehman Brothers after his junior year and study a abroad program in Barcelona, Spain.
- A student who graduated with a BS in Chemistry with an additional major in Spanish and then finished Stanford Law School (where she was a member of Law Review). She accepted a federal clerkship last fall with the Department of Justice in Washington, DC in intellectual property law.

#### FAQs:

##### **Can I take courses outside of my major?**

Carnegie Mellon's diverse curriculum affords you many opportunities to pursue interests outside your major. In fact, it is strongly encouraged. You can choose among courses in the humanities, social sciences, business, engineering, computer science or even the fine arts to gain skills and diversify your knowledge. That's the advantage of attending Carnegie Mellon.

##### **Can I create a degree that combines science and the liberal arts?**

The College of Humanities and Social Sciences and the Mellon College of Science offer a way to combine the breadth of the liberal arts with the technical foundations of the sciences. The Science and Humanities Scholars Program (SHS) is aimed at the sophisticated student scholar who has a deep and far-ranging set of interests in the sciences and the humanities and social sciences.

##### **Can I create a degree that combines science and the fine arts?**

Carnegie Mellon recognizes that there are students who are naturally gifted in both fine arts and the sciences. In order to accommodate students who want to pursue an education simultaneously in these areas, we offer a degree that combines the strengths of the Mellon College of Science with those of the College of Fine Arts. The degree, called the Bachelor of Science and Arts (BSA) offers qualified students the opportunity to develop their interests by combining such areas as Mathematics and Music, Biological Sciences and Art, and Architecture and Physics, just to name a few.

##### **Can I double major or minor?**

If you're interested in linking your studies with another field, opportunities abound at Carnegie Mellon. In fact, many students have a double major, minor or concentration of classes in a secondary field. It's not uncommon to find students who combine disciplines in biology and psychology, technical writing and chemistry, or mathematics and economics. Requirements vary from department to department, so it's best to meet with an advisor before choosing a double major. Some requirements may count for both majors, so you may be able to finish a double major in four years.

#### **What are your advising resources like?**

The Mellon College of Science offers students excellent advising resources. Faculty and staff make sure that students are on track to complete their degrees and advise them not only on academic issues but on careers, research opportunities, internships and scholarships. For those students interested in pursuing a career in medicine, there are outstanding support programs through the Health Professions Program.

#### **Find out more**

Prospective science students:  
**[www.cmu.edu/mcs/prospective](http://www.cmu.edu/mcs/prospective)**

Biological Sciences:  
**[www.cmu.edu/bio](http://www.cmu.edu/bio)**

Chemistry:  
**[www.chem.cmu.edu](http://www.chem.cmu.edu)**

Mathematical Sciences:  
**[www.math.cmu.edu](http://www.math.cmu.edu)**

Physics  
**[www.cmu.edu/physics](http://www.cmu.edu/physics)**

For general undergraduate information and an introduction into planning a career in the health professions, visit these sites:

MCS Undergraduate Programs  
**[www.cmu.edu/mcs/academics/ug.html](http://www.cmu.edu/mcs/academics/ug.html)**

Health Professions Program  
**[www.cmu.edu/hpp](http://www.cmu.edu/hpp)**

For information on the interdisciplinary programs co-sponsored by MCS, visit these sites:

Bachelor of Science and Arts Program (BSA)  
**[www.cmu.edu/interdisciplinary](http://www.cmu.edu/interdisciplinary)**

Science and Humanities Scholars Program (SHS)  
**[www.cmu.edu/shs](http://www.cmu.edu/shs)**