

# Carnegie Mellon University

## GRADUATE STUDY IN INFORMATION, COMPUTER & COMMUNICATIONS TECHNOLOGIES

**Biology, BioMedical, BioTechnology**

**Computer Science**

**Design**

**Engineering**

**Entertainment**

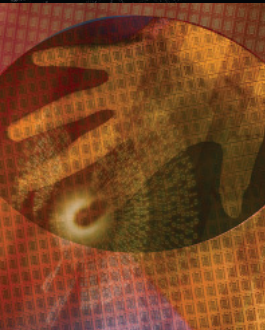
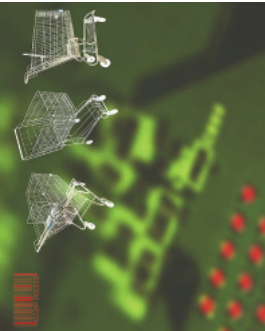
**Information Management, Systems &  
Technology**

**Information Networking**

**Computation and Statistics**

**Policy & Management**

**Telecommunication & Electronic Security**



## Carnegie Mellon University

Founded in 1900 by industrialist and philanthropist Andrew Carnegie, Carnegie Mellon University today is a world class research university of about 11,000 students and 5,000 faculty, research and administrative staff. Students represent all 50 states and more than 100 countries.

The university consists of seven colleges and schools: Carnegie Institute of Technology (engineering), College of Fine Arts, Dietrich College of Humanities and Social Sciences, Heinz College, Mellon College of Science, School of Computer Science, and Tepper School of Business. In its annual rankings, *U.S. News and World Report* consistently rates several of Carnegie Mellon's programs highly, including those in fields of engineering, computer science, design, art, business, and public policy and management.

Carnegie Mellon University is helping to shape the world through education, research and outreach. While Carnegie Mellon has strong roots in Pittsburgh, Pennsylvania, the university truly has a global presence. With branch campuses and the opportunity to study abroad or pursue professional and distance learning, students are sure to find many ways to explore the world with Carnegie Mellon.

The unique culture at Carnegie Mellon allows students and faculty members to work with scholars outside of their schools and colleges. The campus atmosphere offers opportunities to engage in groundbreaking research.

## ADMISSIONS TO GRADUATE PROGRAMS

Admission to graduate programs is handled by the individual academic departments, and requirements and deadlines vary from department to department. For detailed information on the individual programs please visit the websites listed under each degree.

## Biology, BioMedical, BioTechnology

### M.S. in Biotechnology Innovation and Computation

<http://bic.cs.cmu.edu>

### M.S. in Computational Biology

[www.cmu.edu/bio/graduate](http://www.cmu.edu/bio/graduate)

### Ph.D. in Computational Biology

[www.compbio.cmu.edu](http://www.compbio.cmu.edu)

### Ph.D. Program in Neural Computation

[www.cnbc.cmu.edu/pnc](http://www.cnbc.cmu.edu/pnc)

### M.S. in Biotechnology and Management

[www.heinz.cmu.edu/msbtm](http://www.heinz.cmu.edu/msbtm)

### Master in Biomedical Engineering

<http://www.bme.cmu.edu/gradprog/ms.html>

### M.S. in Biomedical Engineering

<http://www.bme.cmu.edu/gradprog/ms.html>

### Ph.D. in Biomedical Engineering

<http://www.bme.cmu.edu/gradprog/phd.html>

### M.D./Ph.D. in Biomedical Engineering (with University of Pittsburgh School of Medicine)

[http://www.bme.cmu.edu/gradprog/md\\_phd.html](http://www.bme.cmu.edu/gradprog/md_phd.html)

## Computer Science

### M.S. in Computer Science

[www.csd.cs.cmu.edu/education/master/index.html](http://www.csd.cs.cmu.edu/education/master/index.html)

### Ph.D. in Computer Science

[www.csd.cs.cmu.edu/education/phd](http://www.csd.cs.cmu.edu/education/phd)

### M.S. in Language Technologies

<http://www.lti.cs.cmu.edu/>

### Ph.D. in Language and Information Technologies

[www.lti.cs.cmu.edu](http://www.lti.cs.cmu.edu)

### Ph.D. in Machine Learning

<http://www.ml.cmu.edu/prospective-students/index.html>

### Ph.D. in Machine Learning and Public Policy

<http://www.ml.cmu.edu/prospective-students/joint-phd-mlheinz.html>

### Ph.D. in Statistics and Machine Learning

<http://www.ml.cmu.edu/prospective-students/joint-phd-mlstat.html>

### Master of Entertainment Technology

<http://www.etc.cmu.edu/site/>

### Masters of Human-Computer Interaction

[www.hcii.cmu.edu/masters-program-pittsburgh](http://www.hcii.cmu.edu/masters-program-pittsburgh)

### Ph.D. in Human-Computer Interaction

[www.hcii.cmu.edu/phd-program](http://www.hcii.cmu.edu/phd-program)

### M.S. in Robotics

[http://www.ri.cmu.edu/ri\\_static\\_content.html?menu\\_id=322](http://www.ri.cmu.edu/ri_static_content.html?menu_id=322)

## Computer Science cont.

### Ph.D. in Robotics

[http://www.ri.cmu.edu/ri\\_static\\_content.html?menu\\_id=321](http://www.ri.cmu.edu/ri_static_content.html?menu_id=321)

### M.S. - Robotics Technology Program

[www.ri.cmu.edu/MS-RT](http://www.ri.cmu.edu/MS-RT)

### M.S. in Information Technology - eBusiness Technology

[www.ebusiness.cs.cmu.edu](http://www.ebusiness.cs.cmu.edu)

### M.S. in Information Technology - Very Large Information Systems

<http://vlis.isri.cmu.edu/>

### M.S. in Information Technology - Embedded Software Engineering

[www.isri.cmu.edu/education/](http://www.isri.cmu.edu/education/)

### Masters of Software Engineering

<http://mse.isri.cmu.edu/software-engineering/>

### Ph.D. in Software Engineering

[www.isri.cmu.edu/education/](http://www.isri.cmu.edu/education/)

### Certificate in Software Engineering (CSE)

<http://mse.isri.cmu.edu/software-engineering/web1-Programs/CSE/index.html>

### Certificate in Systems and Software Engineering (CSSE with Cornell University)

<http://mse.isri.cmu.edu/software-engineering/web1-Programs/CSSE.html>

## Design

### M.S. in Computational Design

<http://www.cmu.edu/architecture/academics/graduate/cd/index.html>

### Ph.D. in Computational Design

<http://www.cmu.edu/architecture/academics/graduate/cd/index.html>

### M.S. in Tangible Interaction Design

[www.cmu.edu/architecture/academics/graduate/index.html](http://www.cmu.edu/architecture/academics/graduate/index.html)

### Master of Design in Communication Planning and Information Design

[http://www.design.cmu.edu/show\\_program.php?s=2&t=2](http://www.design.cmu.edu/show_program.php?s=2&t=2)

### Master of Design in Interaction Design

[http://www.design.cmu.edu/show\\_program.php?s=2&t=3](http://www.design.cmu.edu/show_program.php?s=2&t=3)

### Ph.D. in Design

[www.design.cmu.edu](http://www.design.cmu.edu)

### Masters of Human-Computer Interaction

[www.hcii.cmu.edu/masters-program-pittsburgh](http://www.hcii.cmu.edu/masters-program-pittsburgh)

### Ph.D. in Human-Computer Interaction

[www.hcii.cmu.edu/phd-program](http://www.hcii.cmu.edu/phd-program)

### M.S. in Computational Design and Manufacturing

<http://www.cmu.edu/me/graduate/degree-programs.html>

# Carnegie Mellon's Interdisciplinary Approach

Carnegie Mellon University takes a unique interdisciplinary approach to teaching and research—encouraging collaboration among students and faculty across departments and colleges. This unique perspective fosters the growth of innovative discoveries that provide solutions to real-world problems in a variety of disciplines.

Several interdisciplinary programs for graduate study have grown from this approach. This brochure provides an overview of graduate programs offered at Carnegie Mellon that focus on information, computer, and communications technologies. We encourage you to visit the websites listed.

Carnegie Mellon also encourages collaboration across departmental, college and institutional boundaries, continuing the university's strong tradition of interdisciplinary research. Many faculty members have joint appointments, and adjunct faculty members complete the wide array of expertise available to students. Through research, coursework and seminars, students enjoy opportunities to expand their knowledge in interrelated areas. Additional information on research initiatives can be found at <http://www.cmu.edu/research/centers.shtml>

## Engineering

### **M.S. in Computational Mechanics**

<http://www.ce.cmu.edu/graduate/ms-program.html>

### **Ph.D. in Computational Mechanics**

<http://www.ce.cmu.edu/graduate/phd-program.html>

### **M.S. in Engineering and Technology Innovation Management**

<http://www.cit.cmu.edu/etim/>

### **Master of Business Administration and Master of Software Engineering (MBA/MSE)**

<http://mse.isri.cmu.edu/software-engineering/web1-Programs/MBA-MSE/>

### **Masters of Software Engineering**

<http://mse.isri.cmu.edu/software-engineering/>

### **Ph.D. in Software Engineering**

[www.isri.cmu.edu/education/](http://www.isri.cmu.edu/education/)

### **Certificate in Software Engineering (CSE)**

<http://mse.isri.cmu.edu/software-engineering/web1-Programs/CSE/index.html>

### **Certificate in Systems and Software Engineering (CSSE with Cornell University)**

<http://mse.isri.cmu.edu/software-engineering/web1-Programs/CSSE.html>

### **M.S. in Computational Design and Manufacturing**

<http://www.cmu.edu/me/graduate/degree-programs.html>

### **Master in Biomedical Engineering**

<http://www.bme.cmu.edu/gradprog/ms.html>

### **M.S. in Biomedical Engineering**

<http://www.bme.cmu.edu/gradprog/ms.html>

### **Ph.D. in Biomedical Engineering**

<http://www.bme.cmu.edu/gradprog/phd.html>

### **M.D./Ph.D. in Biomedical Engineering (with University of Pittsburgh School of Medicine)**

[www.heinz.cmu.edu/msbtm](http://www.heinz.cmu.edu/msbtm)

## Engineering cont.

### **M.S. in Electrical and Computer Engineering**

<http://www.ece.cmu.edu/prospective/graduate/masters/>

### **Ph.D. in Electrical and Computer Engineering**

*(focus on Signal Processing and Communications of Software Systems and Computer Networking)*

<http://www.ece.cmu.edu/programs-admissions/phd/index.html>

## Entertainment

### **M.S. in Music & Technology**

<http://music.cmu.edu/>

### **Master of Entertainment Technology**

<http://www.etc.cmu.edu/site/>

## Information Management, Systems & Technology

### **Master of Information Systems Management**

[www.heinz.cmu.edu/mism](http://www.heinz.cmu.edu/mism)

### **Master of Information Technology Strategy**

<http://www.cmu.edu/mits/>

### **M.S. in Information Security Policy and Management**

[www.heinz.cmu.edu/msispm](http://www.heinz.cmu.edu/msispm)

### **M.S. in Information Technology**

*(tracks in IT Management, Information Security and Assurance, Software Design and Management)*

[www.heinz.cmu.edu/msit](http://www.heinz.cmu.edu/msit)

### **M.S. in Information Technology - Privacy Engineering**

<http://privacy.cs.cmu.edu>

### **Master of Public Management**

*(in Educational Technology, Management, and Information Systems)*

[www.heinz.cmu.edu/mpm](http://www.heinz.cmu.edu/mpm)

### **Ph.D. in Information Systems and Management**

[www.heinz.cmu.edu/msit](http://www.heinz.cmu.edu/msit)

## Information Management, Systems & Technology cont.

### **Ph.D. in Information Systems**

[www.tepper.cmu.edu/doctoral-program/index.aspx](http://www.tepper.cmu.edu/doctoral-program/index.aspx)

## Information Networking

### **M.S. in Information Networking**

[www.ini.cmu.edu/degrees/index.html](http://www.ini.cmu.edu/degrees/index.html)

### **M.S. in Information Security Technology and Management**

[www.ini.cmu.edu/degrees/index.html](http://www.ini.cmu.edu/degrees/index.html)

### **Executive M.S. in Information Assurance**

[www.ini.cmu.edu/degrees/index.html](http://www.ini.cmu.edu/degrees/index.html)

## Computation and Statistics

### **M.S. in Computational Finance**

[www.tepper.cmu.edu/master-in-computational-finance/index.aspx](http://www.tepper.cmu.edu/master-in-computational-finance/index.aspx)

### **Pre-Doctoral Program in Interdisciplinary Education Research**

[www.cmu.edu/pier](http://www.cmu.edu/pier)

### **M.S. in Logic, Computation, and Methodology**

<http://www.hss.cmu.edu/philosophy/graduate-ms.php>

### **Ph.D. in Logic, Computation, and Methodology**

<http://www.hss.cmu.edu/philosophy/graduate-phd.php>

### **Ph.D. in Pure and Applied Logic**

<http://logic.cmu.edu/>

### **Master's in Statistical Practice**

<http://www.stat.cmu.edu/programs/graduate>

### **Ph.D. in Statistics**

<http://www.stat.cmu.edu/programs/graduate>

### **Ph.D. in Statistics and Public Policy**

<http://www.stat.cmu.edu/programs/graduate>

### **Ph.D. in Statistics and Machine Learning**

<http://www.stat.cmu.edu/programs/graduate>

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## FUNDING FOR GRADUATE STUDY

Doctoral programs at Carnegie Mellon usually provide tuition and stipends for their students. Master's programs are typically not funded, but partial departmental assistance may be available. Additionally, various types of financial aid are available for master's and Ph.D. programs. For more information, contact the individual departments or Enrollment Services: <http://www.cmu.edu/hub/new-grad/index.html>

### Policy & Management

#### **M.S. in Public Policy and Management**

[www.heinz.cmu.edu/msppm](http://www.heinz.cmu.edu/msppm)

#### **Master of Public Management**

*(in Management, Healthcare and Education)*

<http://www.heinz.cmu.edu/mpm>

#### **Ph.D. in Public Policy and Management**

[www.heinz.cmu.edu/phd](http://www.heinz.cmu.edu/phd)

#### **Ph.D. in Statistics and Public Policy**

<http://www.stat.cmu.edu/programs/graduate>

#### **Ph.D. in Engineering & Public Policy**

<http://www.epp.cmu.edu/graduate/index.html>

#### **Ph.D. in Strategy, Entrepreneurship and Technological Change**

[www.cmu.edu/SETChange](http://www.cmu.edu/SETChange)

#### **M.S. in Robotic Systems Development**

[http://www.ri.cmu.edu/ri\\_static\\_content.html?menu\\_id=437](http://www.ri.cmu.edu/ri_static_content.html?menu_id=437)

#### **Ph.D. in Computation, Organizations and Society**

<http://cos.cs.cmu.edu/>

#### **Ph.D. in Machine Learning and Public Policy**

<http://www.ml.cmu.edu/prospective-students/joint-phd-mlheinz.html>

#### **M.S. in Biotechnology and Management**

[www.heinz.cmu.edu/msbmt](http://www.heinz.cmu.edu/msbmt)

#### **M.S. in Information Technology - Software Engineering Management**

[www.isri.cmu.edu/education/](http://www.isri.cmu.edu/education/)

#### **M.S. in Engineering and Technology Innovation Management**

<http://www.cit.cmu.edu/etim/>

#### **Master of Business Administration and Master of Software Engineering (MBA/MSE)**

<http://mse.isri.cmu.edu/software-engineering/web1-Programs/MBA-MSE/>

### Telecommunication & Electronic Security

#### **M.S. in Electrical and Computer Engineering**

<http://www.ece.cmu.edu/prospective/graduate/masters/>

#### **Ph.D. in Electrical and Computer Engineering**

*(with a focus on Signal Processing and Communications of Software Systems and Computer Networking)*

<http://www.ece.cmu.edu/programs-admissions/phd/index.html>

#### **M.S. in Information Networking**

<http://www.ini.cmu.edu/degrees/index.html>

#### **M.S. in Information Security Technology and Management**

[http://www.ini.cmu.edu/degrees/pgh\\_msistm/index.html](http://www.ini.cmu.edu/degrees/pgh_msistm/index.html)

#### **Master of Information Systems Management**

[www.heinz.cmu.edu/mism](http://www.heinz.cmu.edu/mism)

#### **M.S. in Information Technology**

*(tracks in IT Management, Information Security and Assurance, Software Design and Management)*

[www.heinz.cmu.edu/msit](http://www.heinz.cmu.edu/msit)

#### **M.S. in Information Security Policy and Management**

[www.heinz.cmu.edu/msispm](http://www.heinz.cmu.edu/msispm)

#### **M.S. in Information Technology - Information Security**

<http://www.ini.cmu.edu/degrees/index.html>

#### **Executive M.S. in Information Assurance**

[www.ini.cmu.edu/degrees/index.html](http://www.ini.cmu.edu/degrees/index.html)

## Global Presence

### Silicon Valley

*Moffett Field, CA*

<http://www.cmu.edu/silicon-valley/>

**M.S. in Software Engineering**

**M.S. in Software Management**

**M.S. in Engineering and Technology Innovation Management**

**M.S. in Information Technology**

*MSIT-Mobility, MSIT-Information*

*Security, MSIT-Software Management*

**M.S. in Electrical and Computer Engineering**

**Ph.D. in Electrical and Computer**

**Engineering** *(with a focus on mobility, security, wireless sensors and networking)*

### Australia

<http://www.heinz.cmu.edu/australia/index.aspx>

**M.S. in Information Technology**

**M.S. in Information Technology - Information Technology Management**

**M.S. in Public Policy and Management**

### Portugal

<http://www.cmuportugal.org/home.aspx?id=132>

**Master of Entertainment Technology**

**Master in Human-Computer Interaction**

**M.S. in Information Technology - Information Security**

**Master of Software Engineering**

**Ph.D. in Computer Science**

**Ph.D. in Computer Science - Robotics**

**Ph.D. in Electrical and Computer Engineering**

**Ph.D. in Engineering and Public Policy**

**Ph.D. in the area of Human-Computer Interaction**

**Ph.D. in Language Technology**

**Ph.D. in Applied Mathematics**

**Ph.D. in Software Engineering**

**Ph.D. in Technological Change and Entrepreneurship**

### Rwanda

<http://www.cmu.edu/rwanda/>

**Master's in Information Technology**

**M.S. in Electrical and Computer Engineering** *(Start date Fall 2014)*

Carnegie Mellon University does not discriminate in admission, employment, or administration of its programs or activities on the basis of race, color, national origin, sex, handicap or disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. Furthermore, Carnegie Mellon University does not discriminate and is required not to discriminate in violation of federal, state, or local laws or executive orders. Inquiries concerning the application of and compliance with this statement should be directed to the vice president for campus affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056. Obtain general information about Carnegie Mellon University by calling 412-268-2000.