COLLEGE ADMISSIONS COLLABORATIVE HIGHLIGHTING ENGINEERING AND TECHNOLOGY



Institutional Sponsors for 2019 CACHET Counselor Reception

- Boston University
- Bucknell University
- California Institute of Technology
- Carnegie Mellon University
- Case Western Reserve University
- Colorado School of Mines
- Columbia University
- The Cooper Union
- Dartmouth College
- Drexel University
- Florida Institute of Technology
- Georgia Institute of Technology
- Harvey Mudd College
- Illinois Institute of Technology
- Kettering University
- Lafayette College
- Lawrence Technological University
- Lehigh University
- Massachusetts Institute of Technology

- New York University
- Nova Southeastern University
- Olin College of Engineering
- Rensselaer Polytechnic Institute
- Rice University
- Rochester Institute of Technology
- Rose-Hulman Institute of Technology
- Rutgers University New Brunswick
- Stevens Institute of Technology
- Syracuse University
- Trinity College
- Tufts University
- Union College
- University of Chicago
- University of Miami
- University of Pennsylvania
- Wentworth Institute of Technology
- Worcester Polytechnic Institute



BOSTON UNIVERSITY



- Urban teaching and research university in the heart of Boston a hub for leading engineering, biomedical, and health-related organizations
- Member of the prestigious Association of American Universities (AAU)
- Named 1 of 53 "International Powerhouse Universities" for strength of its medical and health-related research



\$400 MILLION

IN RESEARCH FUNDING AWARDED ANNUALLY



#39

RANK AMONG GLOBAL
UNIVERSITIES
U.S. NEWS & WORLD REPORT



10

UNDERGRADUATE SCHOOLS AND COLLEGES



Boston University

VAST OPPORTUNITIES IN STEM FIELDS

BOSTON UNIVERSITY

- The College of Arts & Sciences
- College of Engineering
- College of Health & Rehabilitation Sciences: Sargent College





#6

WHERE BU GRADUATES
RANK IN THE WORLD FOR
EMPLOYABILITY

TIMES HIGHER EDUCATION

STEM MAJORS



\$20 MILLION

INVESTMENT IN Innovate@bu

2,326

LABORATORIES



CUTTING-EDGE RESEARCH FACILITIES, SUCH AS THE NEW KILACHAND CENTER FOR INTEGRATED LIFE SCIENCES & ENGINEERING

IN ANNUAL FUNDING FOR THE UNDERGRADUATE RESEARCH

\$1 MILLION

OPPORTUNITIES PROGRAM (UROP)

Boston University

BU COLLEGE OF ENGINEERING



- Educating "Societal Engineers," students dedicated to using their professional skills to improve society's quality of life.
- 250+ paid student research positions alongside impressive faculty
- Ranked #8 in mid-career salary for graduates (Payscale)
- Dedicated study abroad programs in Germany, France, Spain, Australia

MAJORS

- Biomedical Engineering
- Computer Engineering
- Electrical Engineering
- Mechanical Engineering

CONCENTRATIONS

- Aerospace
- Energy Technologies
- Manufacturing Engineering
- Materials Science & Engineering
- Nanotechnology
- Photonics
- Systems Engineering
- Technology Innovation



Boston University



Bucknell University



Bucknell University



Bucknell University

Undergraduate Research



More than 60% of first year students participate in our signature. Summer Undergraduate Research Fellowships (SURF) program. They benefit from having a faculty mentor for the summer term and a \$6,350 stipend award.

Caltech

Academic Perspectives

The Core Curriculum: An interdisciplinary foundation for your undergraduate career

Discipline	Terms
Biology	1
Chemistry	2
Humanities & Social Sciences	12
Introductory Lab	2

Discipline	Terms
Mathematics	3
Physical Education	3
Physics	3
Science Communication	1

Also required: Freshman "Menu" Course (Astronomy, Geology, Environmental Science and Engineering, Information and Logic, or Energy Science)

Students choose Caltech because they benefit from a 3:1 student-to-faculty ratio and an interdisciplinary core curriculum.

Caltech

The Residential Experience



Students choose from among 9 residential communities, 18 NCAA Varsity sports, and more than 100 clubs and organizations. Your residential community becomes your hub for your academic and your social lives.

Caltech

The Value of A Caltech Education

We are committed to making a Caltech education accessible to all admitted students.

- Need blind admissions process for all U.S. Citizens and permanent residents.
- Need sensitive admissions process for international citizens.
- We meet 100% of the demonstrated need of all admitted students.



caltech.edu

Caltech



Carnegie Mellon University



Carnegie Mellon University



Carnegie Mellon University





Case Western Reserve University

Health Education Campus

Case Western Reserve University and Cleveland Clinic are building the future of health care with a 485,000-square-foot campus opening this spring. Students from our medical, nursing and dental schools will learn together in a state-of-the-art space full of cutting-edge technologies and collaborative space.



Rendering courtesy of Foster + Partners





Case Western Reserve was the first university in the world to work with Microsoft HoloLens before the technology was released to the public. Our initial and ongoing project involves creating a full anatomy curriculum viewed entirely through its mixed-reality platform; other projects have included offering access to some of Europe's most precious art and making holograms part of a contemporary dance performance.







Academic Programs

MASTERS			MALIOR	Programs					
•	•	•		Advanced Manufacturing					
		•		Aerospace Studies (Air Force ROTC)					
				Applied Mathematics & Statistics					
•	•	•	•	Computational & Applied Math Emphasis					
•	•	•	•	Statistics Emphasis					
•				Applied Physics					
	•			Biochemistry					
		•		Biology					
		•		Biomechanical Engineering					
		•		Biomedical Engineering					
		•		Biophysics					
		•		Business & Entrepreneurship					
			•	Chemical Engineering					
			•	Biological Engineering Track					
			•	Process Engineering Track					
•	•	•	•	Chemistry					
			•	Biochemistry Track					
			•	Environmental Chemistry Track					
	•		•	Civil Engineering					
•				Civil & Environmental Engineering					

MASTERS			MAJOR	Programs	MASTERS		MINOR	MAJOR	Programs	
			•	Engineering Physics		•	•	•	Computer Science	
\exists	•			Entrepreneurship	-	L	L		Business Specialty	
\exists		•		Environment & Sustainability Studies		L		•	Computer Engineering Specialty	
\dashv	_	Ť		Environmental Chemistry	9	L		•	Data Science Specialty	
	Ĭ			Environmental Engineering	_	L	L	•	Research Honors Specialty	
-	~	_	•			L			Robotics & Intelligent Systems Specialty	
\dashv		_		Explosive Engineering		L			Culture, Creativity & Communication	
_		•		Explosive Processing of Materials	10	L			Digital Systems	
•				Geochemistry		•		•	Economics	
	•	•		Geological Engineering				•	Electrical Engineering	
				Environmental, Engineering Geology & Geotechnics &		L	L	•	Antennas & Wireless Communications Emphasis Energy Systems & Power Electronics Emphasis	
_			•	Groundwater Engineering Emphasis				•		
			•	Minerals & Petroleum Exploration Engineering					Information & Systems Sciences Emphasis Integrated Circuits & Electronics Emphasis	
		_		Emphasis				•		
•				Geology		•			Energy	
•		•	•	Geophysical Engineering					Engineering & Technology Management	
•				Geophysics					Engineering	
		•		Giobal Politics & Society				•	Community Development Specialty	
•				Hydrology				•	Corporate Sustainability Specialty	
		•		Leadership in Social Responsibility				•	Energy Studies Specialty	
		_		Materials Science					Individualized Specialty	
-	_	_							Music, Audio Engineering & Recording Arts Specialty Robotics & Automation Specialty	
	•	•		Mathematical Sciences						
								•	Water Security Specialty	
									Engineering for Community Development	

	MSTERS	-BV	MNOR	MAJOR	Programs						
				Mo	McBride Honors in Public Affairs						
	•			Me	Mechanical Engineering						
				Me	Metallurgical & Materials Engineering						
				Mi	dstream Engineering						
				Mi	Illary Science (Army ROTC)						
				Mi	neral & Energy Economics						
0		Г	Г	Mi	neral Exploration						
				Mi	ning & Earth Systems Engineering						
	Г			Mi	Mining Engineering						
	Г			Mi	ning Engineering & Management						
				Mu	Music, Audio Engineering & Recording Arts						
	•			Mi	Music Technology						
				Na	Natural Resources & Energy Policy						
	Г			Nu	Nuclear Engineering						
				Operations Research							
				Pe	troleum Data Analytics						
				Pe	troleum Engineering						
	•			Ph	ysics						
				Polymer Chemistry							
				Quantitative Biosciences & Engineering							
	•			Space & Planetary Science & Engineering							
				Space Resources							
				St	nuctural Engineering						
				Ue	derground Construction & Tunneling						
	Г		Г	W	ater Sustainability						



Admissions & Financial Aid

Rolling Admissions

November 1: Priority Deadline

Application Requirements

- Online Application
- Official High School Transcript
- Official or Self-Reported ACT/SAT Score

Fall 2018 GPA/Test Scores

(middle 50%)

ACT Composite: 29-33

SAT Composite: 1330-1480

Unweighted GPA: 3.75-4.00

^{2018–19} Cost to	attend Mines	M Colorado	Out-of-state
	Tuition	\$16,650	\$36,270
	Room & Board	\$13,169	\$13,169
	Fees	\$2,314	\$2,314
	Books & Supplies	\$1,500	\$1,500
	Personal Expenses	\$1,870	\$1,870
N	Total Cost	\$35,503	\$55,123

Merit Scholarships

- No additional application required
- Submit new transcripts or test scores until March 1

\$2,500-\$5,000/year: CO resident

scholarships*

\$9,000-\$14,000/year: Non-CO

resident scholarships*





Columbia University

Columbia College and Columbia Engineering

- 6,000 students: 4,500 Columbia College; 1,500 Columbia Engineering
- ~100 programs of study, from Astronomy to Materials Science
- Over 50% of undergraduates major in science or engineering
- 17 areas of study in engineering and applied sciences
- 22 majors in all branches of the biological, natural and physical sciences
- 6:1 student to faculty ratio; in the physical sciences, 3:1
- Over 20 faculty members in the National Academy of Engineering
- Over 200 research institutes, centers and world-class laboratories
- \$1 billion in annual research expenditures
- 600 different patents, generating \$1.75 billion in gross revenue







Columbia University



Columbia University



The Cooper Union



The Cooper Union



The Cooper Union



Cornell University

CornellEngineering





14 Undergraduate Majors

- Biological Engineering
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Science
- •Electrical & Computer Engineering
- Engineering Physics

- Environmental Engineering
- •Information Science, Systems, & Technology
- Materials Science & Engineering
- Mechanical Engineering
- Operations Research & Information Engineering
- Science of Earth Systems
- Independent Major

Cornell University

Dartmouth College, Thayer School of Engineering





THAYER SCHOOL OF ENGINEERING AT DARTMOUTH

engineering at Dartmouth: one of the nations' oldest programs

1867: Founded – this our 150th Anniversary year

Established as a "Professional School" *liberal arts* education first



Thaver

DISTINCTLY DIFFERENT – no engineering departments

Founded as a school of civil engineering; EE, ME later added Transformation in 1958 to an AB plus BS (BE) program

- Dartmouth unique: full exposure to liberal arts
- Earn two degrees: AB and BE, 4 or 5 years
- Emphasis on team-based design and innovation from start



Fletche



Classes of '94 and '9'

Points of Distinction

No entry barriers. Try a design course! Declare major as sophomore
No departments. Interdisciplinary with concentrations
ONLY one requiring AB prior to BE: "Liberal Engineering"



Cummings Hall, 1940s



THAYER SCHOOL OF ENGINEERING AT DARTMOUTH

Dartmouth College, Thayer School of Engineering

- unique integration of ENGINEERING + LIBERAL ARTS:
 - "LIBERAL ENGINEERING" only one to require AB before BE
 - how can you harness technology to address the world's problems – if you don't first understand the world?
- one of LARGEST MAJORS ON CAMPUS
- EXPERIENTIAL LEARNING: model of INTERDISCIPLINARY
 PROJECT BASED DESIGN open to ALL (ie, not just engineers!)
- diverse students, national leader in reaching GENDER PARITY
- focus on ENTREPRENEURSHIP (1/3 faculty); recognized by NAE in 2014 with largest educational prize in the country for INNOVATION IN ENGINEERING EDUCATION











Drexel University

A comprehensive research university and experiential learning leader in Philadelphia, Pennsylvania.



24,000+

15,000+

11:1

19

Students

Full-Time Undergraduates

Student to Faculty Ratio

Median Class Size

Drexel University



Drexel University

Drexel's cooperative education program is one of the largest of its kind

Explore a potential career while enhancing the classroom dynamic



Drexel University



Florida Institute of Technology



Florida Institute of Technology



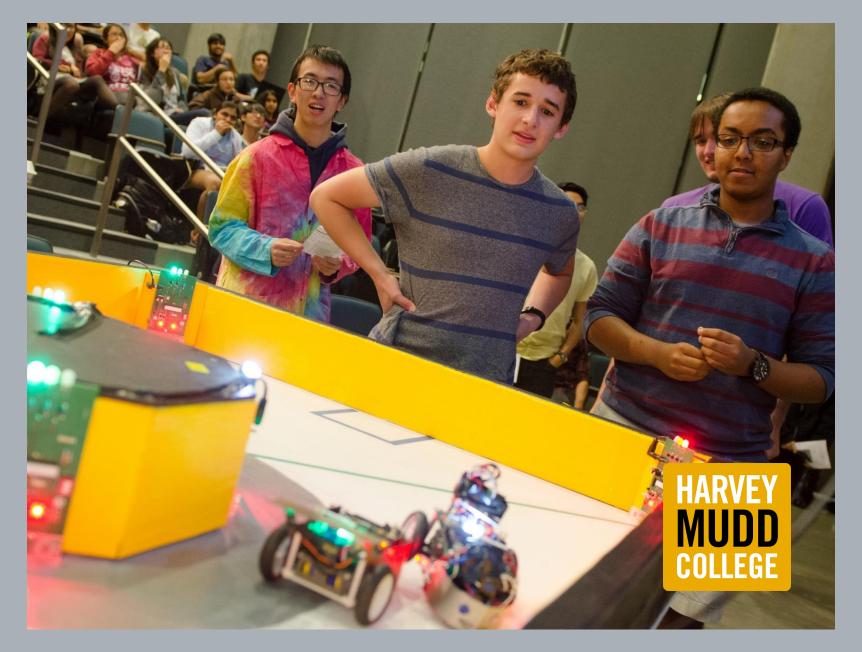
Florida Institute of Technology



Harvey Mudd College



Harvey Mudd College



Harvey Mudd College

ILLINOIS TECH

Chicago's Innovation University







More than 98% of our students receive some form of financial aid.



86% of classes have fewer than 40 students



17 Varsity Athletics Programs

Illinois Institute of Technology



NEW Kaplan Institute—Opens Fall 2018

Special programming for:

Creativity — Innovation

IPRO Program — Idea Shop

Illinois Institute of Technology



ILLINOIS TECH



admissions.iit.edu

Illinois Institute of Technology

Kettering



Kettering University

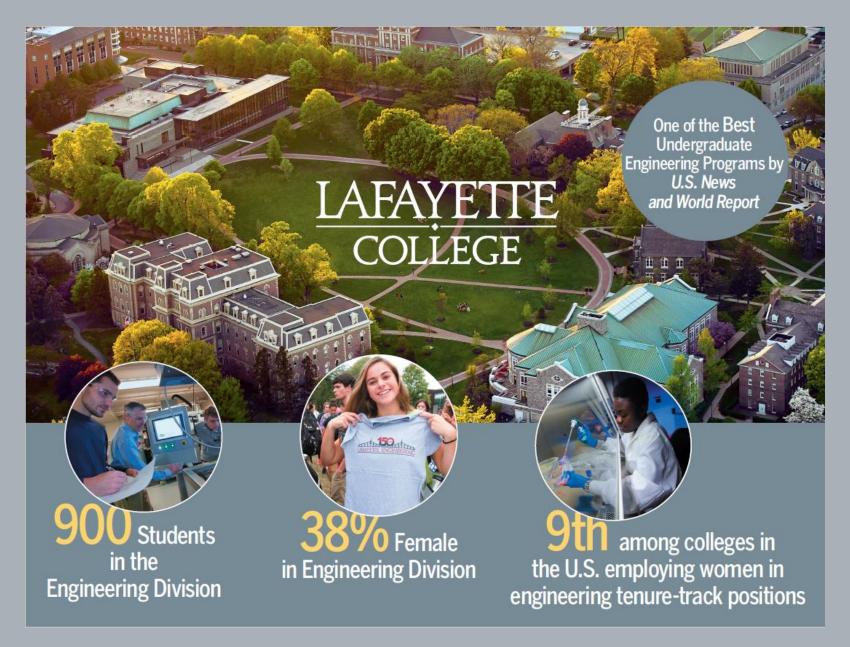


Kettering University

Kettering

- 2,300 students total
- STEM and Business Focus
- 13 Undergraduate Majors
- 12 Graduate Programs
- 14:1 student/faculty ratio
- Average class size is 20 students
- Fixed-rate Tuition Guarantee

- Our Co-op Program:
 - Is required
 - Is paid
 - Starts in the first year
 - Includes 500+ employer partners
 - Students graduate with 2.5 years of professional experience
- 98% graduates employed/in graduate school within 6 months



Lafayette College

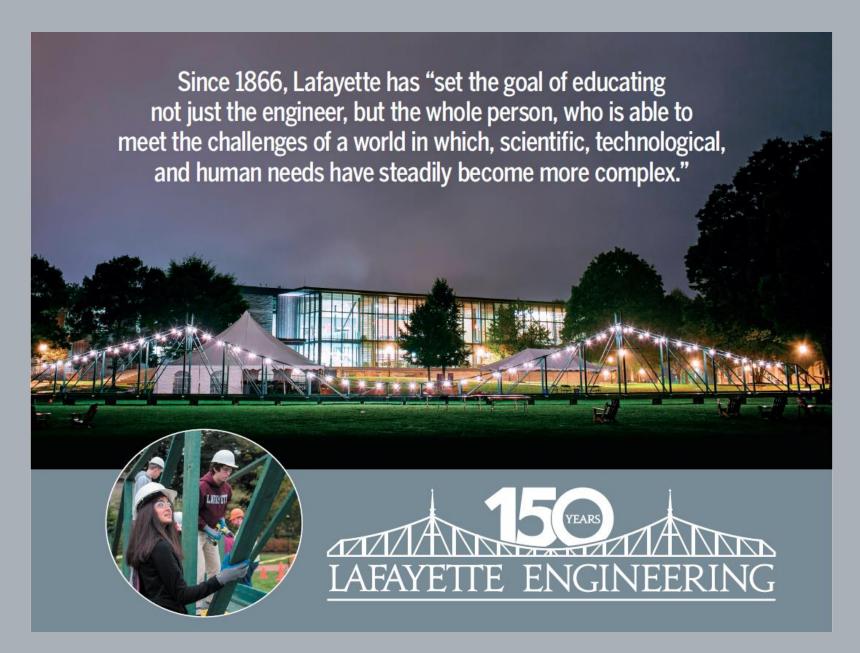


20% to 25%

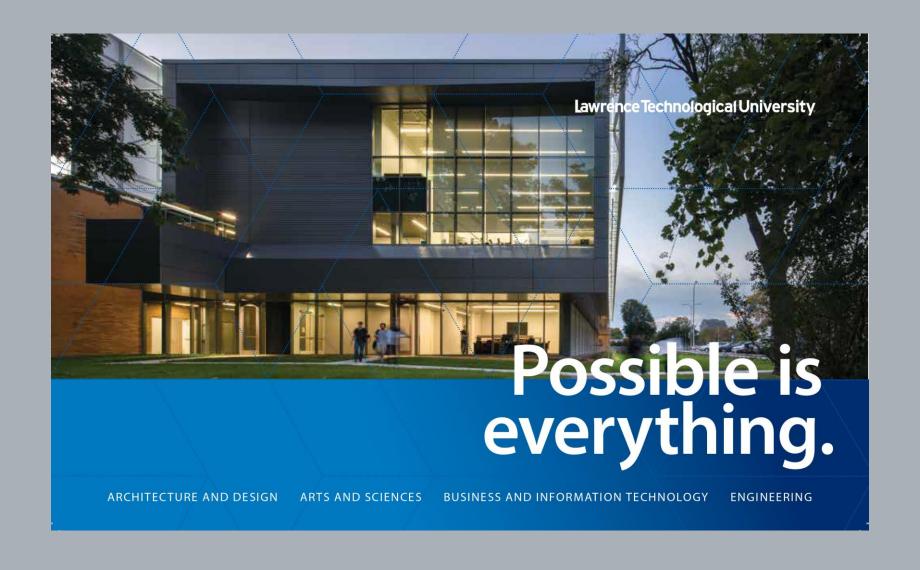
of graduates seek advanced degrees at top schools

engineering graduates are employed, continuing their education, in internships, or in volunteer work six months after graduation

Lafayette College



Lafayette College



Lawrence Technological University



Lawrence Technological University



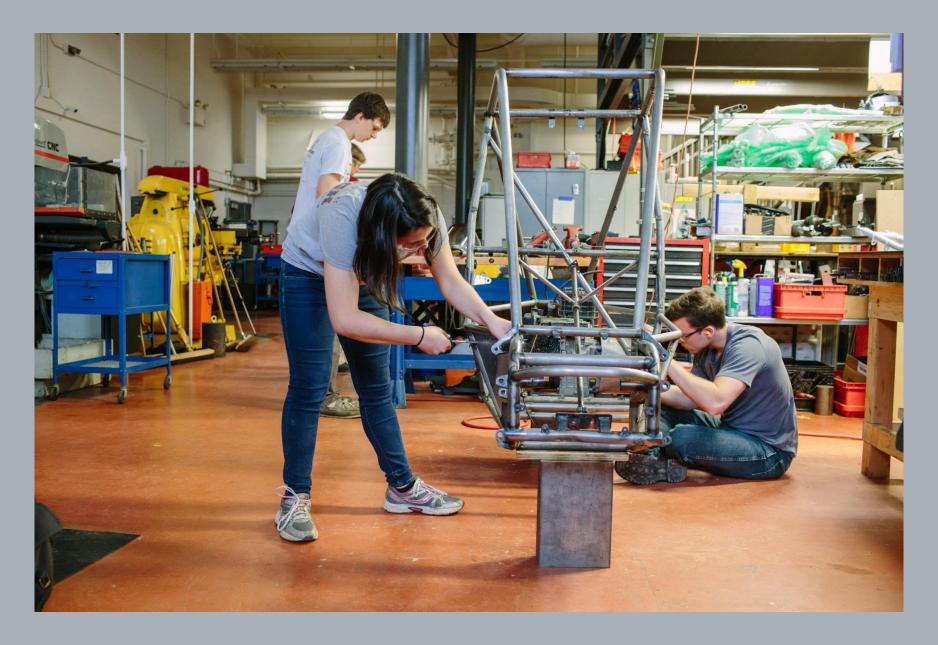
Lawrence Technological University



Lehigh University



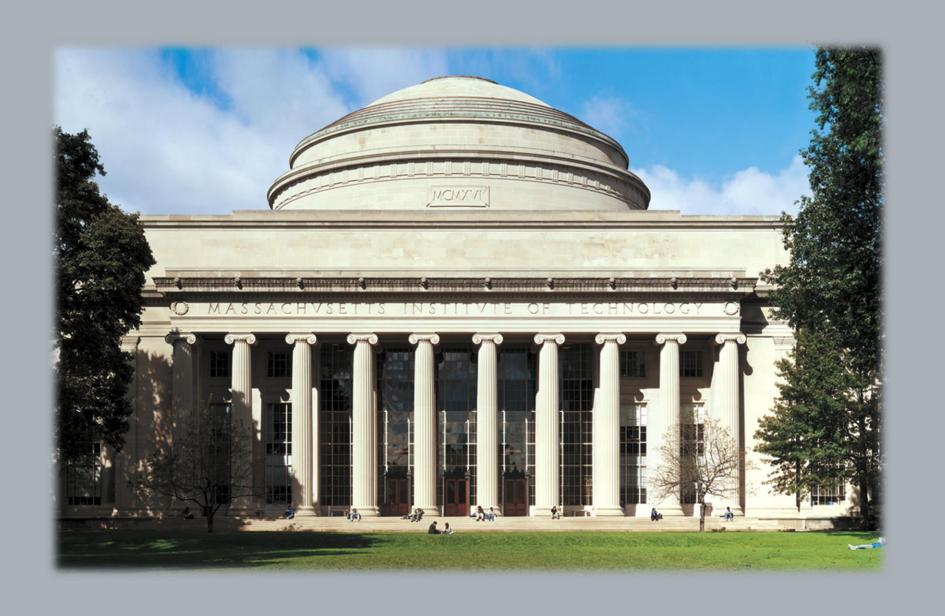
Lehigh University



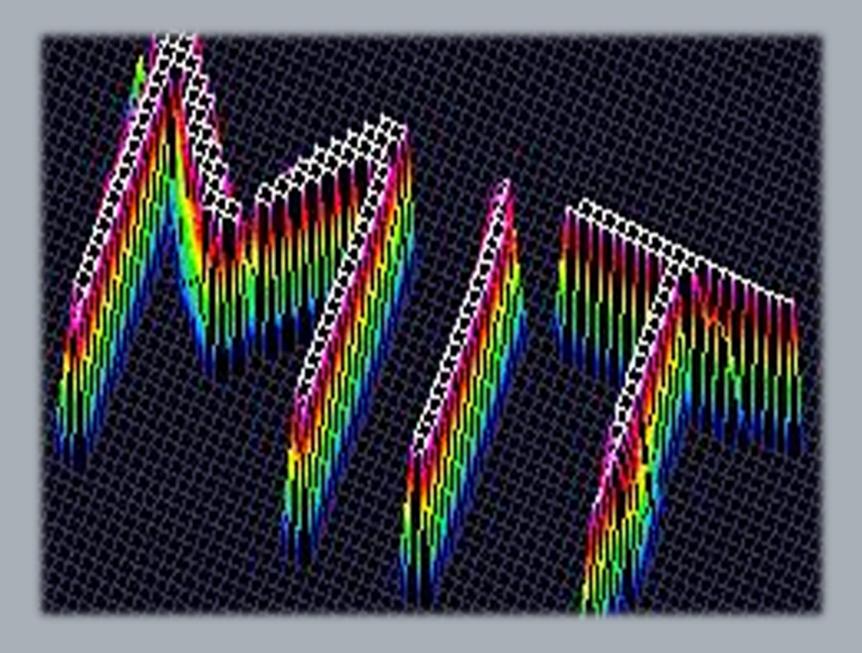
Lehigh University



Massachusetts Institute of Technology



Massachusetts Institute of Technology



Massachusetts Institute of Technology



New York University



New York University



New York University



Nova Southeastern University



College of Engineering and Computing

College of Natural Sciences and Oceanography

College of Health Care Sciences

College of Osteopathic Medicine

College of Psychology

Research

- Anti-Cancer Therapies
- Coral Reef Restoration
- Stem Cell Treatments
- Wild DNA Forensics
- Cybersecurity
- NSU's Center for Collaborative Research

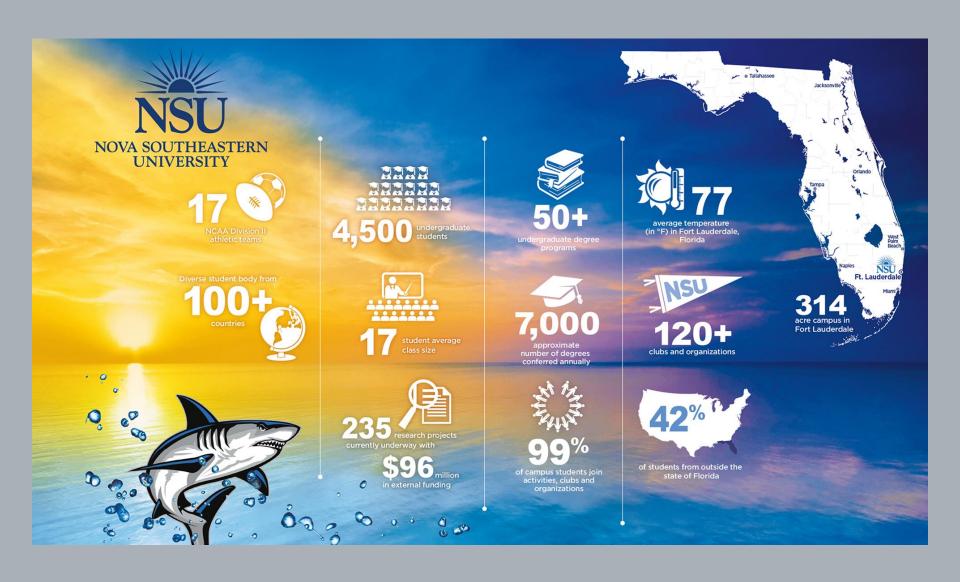
Special Programs

- 16 Dual Admission combined Bachelors/Advanced degree options
- Razor's Edge Research Scholars Program
- AIM High Medical Camp
- Behavioral Neuroscience Summer Training Program





Nova Southeastern University



Nova Southeastern University



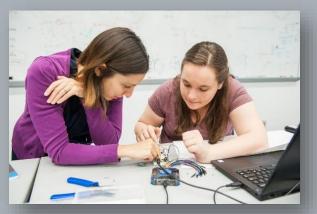
...preparing exemplary engineering innovators who recognize needs, design solutions and engage in creative enterprises for the good of the world.

Olin College of Engineering

Olin by the Numbers

- 350 undergraduate students
- 50% female identified
- 8:1 student/faculty ratio
- Olin Merit Scholarship awarded to every enrolling student, valued at more than \$100,000
- Meet 100% of demonstrated need for US Citizens and Permanent Residents











Princeton Review

- Best Classroom Experience #2
- Professors Get High Marks #3
- LGBTQ-Friendly #3
- Students Study The Most #4
- Happiest Students #14

U.S. News #3 Best Undergraduate Engineering Programs, non-doctoral







Olin College of Engineering



Rensselaer Polytechnic Institute

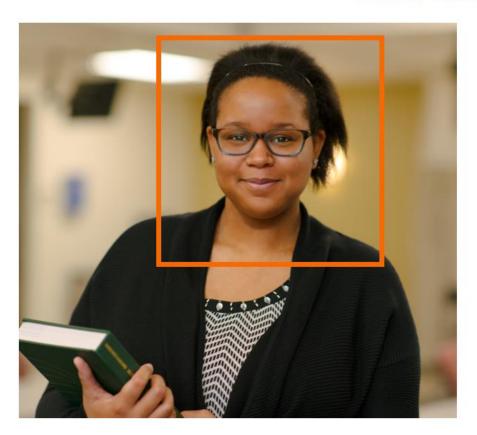


Rensselaer Polytechnic Institute



Rensselaer Polytechnic Institute

RIT Rochester Institute of Technology



First, an introduction.

We're RIT. A university of curious minds motivated by the thrill of discovery and determined to move the world forward. Together, we make the ordinary extraordinary.

Rochester Institute of Technology

RIT Rochester Institute of Technology



Advancing beyond the expected.

Known for world-class engineering and computing, acclaimed art and design, and business and humanities programs that encourage entrepreneurial thinking and innovation, we're always on to something amazing.

3rd

Largest producer of STEM degrees among all private universities in the nation 4th

Oldest and one of the word's largest cooperative education programs 95%

Consistently, 95 percent of graduates enter the workforce or graduate study annually

Rochester Institute of Technology

RIT | Rochester Institute of Technology

Proud to host one of the world's largest and oldest cooperative education programs.

Co-op is relevant, realworld, and remarkable experience. 100%

Of our programs offer experiential learning programs, such as co-ops, internships, research, or clinical rotations

4,500

Students complete more than 6,200 co-ops each vear

92%

Of employers said they would hire their co-op for a full-time position

3,400+

Employment partners host RIT co-op students each year

\$105m

Co-op students annually generate \$105 million in earnings

Rochester Institute of Technology



ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Rose-Hulman Institute of Technology



Rose-Hulman Institute of Technology



ROSE-HULMAN

Rose-Hulman Institute of Technology



Rutgers University - New Brunswick

Rutgers School of Engineering

Est. 1864: Among the oldest engineering programs in the U.S.

5,100 students
10 degree majors
175+ research centers

Rutgers Class of 2022 Profile 944 students 25% women

1 in 5 faculty members are women 1,000+ alumni are current CEOs, COOs, and Presidents 40+ student-lead engineering organizations









Rutgers University - New Brunswick

Rutgers School of Engineering

#1

Public university in the NJ/NY metro region for undergraduate engineering

U.S. News & World Report

Explore 10

Students explore all majors before declaring

#17

Rutgers ranking among public national universities

U.S. News & World Report

Top 50

Undergraduate engineering programs

U.S. News & World Report

5

Nationally recognized research centers

\$7.5M

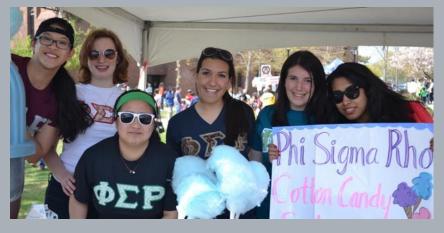
Scholarships awarded to engineering undergraduates (2018/2019)

Rutgers University - New Brunswick

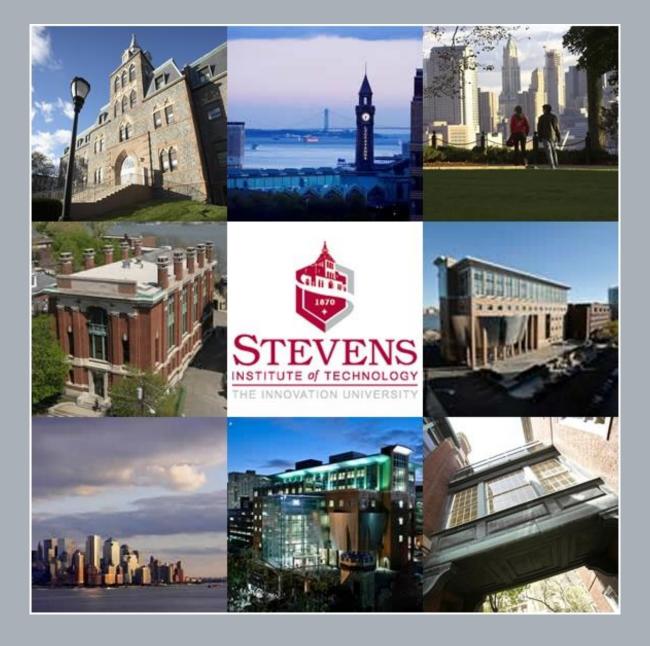








Rutgers University - New Brunswick



Stevens Institute of Technology









@FollowStevens

- Located in Hoboken, New Jersey; right across the river from Manhattan
- Founded in 1870
- 3,123 Undergraduate Students
- 10:1 Student to Faculty Ratio; Average Class Size: 25
- B.A., B.E., B.S., M.A., M.E., M.S., M.B.A, Ph.D.
- Majors in Business, Computer Science, Engineering,

Humanities & the Arts, and Sciences



Stevens Institute of Technology



Stevens Institute of Technology

Syracuse











Syracuse University's College of Engineering and Computer Science

Syracuse University

Syracuse

ABET Accredited Programs

- Aerospace Engineering
- Bioengineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Environmental Engineering
- Mechanical Engineering









Syracuse University's College of Engineering and Computer Science

Syracuse University

Syracuse Invent@SU Invention Accelerator

- Design and prototype a patentable device
- Pitch to industry leaders
- Innovate for six weeks at Syracuse University or in NYC
- Compete to win \$5,000
- Start a business in SU's entrepreneurial ecosystem
- Enter competitions







Syracuse University's College of Engineering and Computer Science

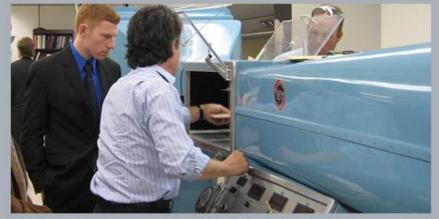
Syracuse University



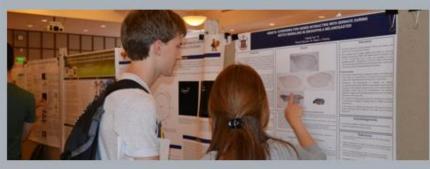
Trinity At A Glance:

- Location: Hartford, CT
- 2,117 undergraduates
- Average 18 students per class
- 9:1 student/faculty ratio
- 41 majors and 28 minors offered
- 137 student clubs/80+ Community Learning Partners
- 47 states/ 70 countries represented on campus
- ~70 80 total enrollment for all engineering majors

Trinity College (CT)







4 ABET accredited engineering programs:

- Biomedical
- Computer
- Electrical
- Mechanical

Facilities/Lab Equipment: Roy Nutt Mathematics, Engineering & Computer Science Center

- Supersonic shock tube
- Subsonic wind tunnel
- VLSI chip design workstations
- Biomedical animal surgery and recording facilities
- SEM and TEM microscopes and more...

Trinity College (CT)

Admissions and Financial Aid:

- Exclusively Common Application
- ED1 and ED2: Nov. 15/Jan. 1
- Regular Jan. 15
- Test optional for all academic interest (international student requirement varies)
- Application fee waived for all first-generation students
- Meet 100% of financial need







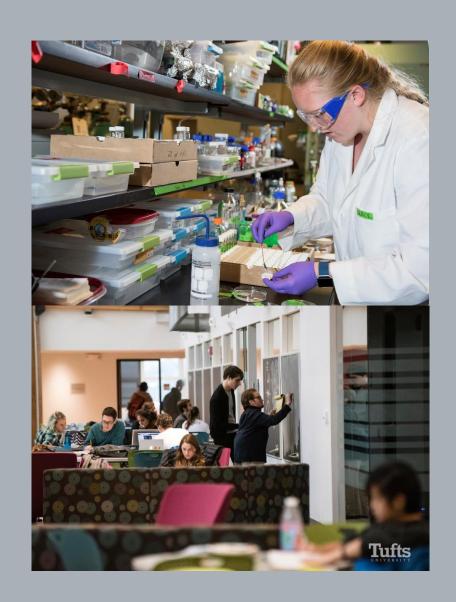
Trinity College (CT)



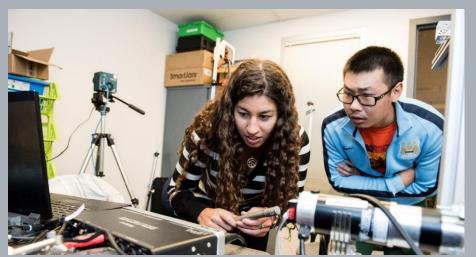
Tufts University



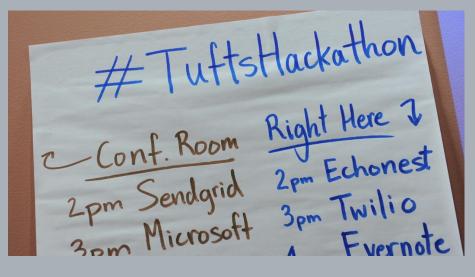
- > Approximately 5400 Undergraduate Students
- > Approximately 880 Students in the School of Engineering
- > 8 ABET accredited engineering degrees
- > 80% of undergraduates participate in research or internship opportunities
- > Interdisciplinary programs and opportunities to major or minor across schools
- > 49% of the incoming class in the School of Engineering are women
- > 100% of financial need met for admitted students

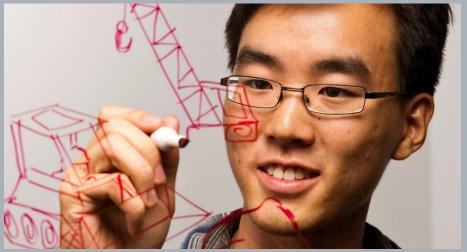


Tufts University

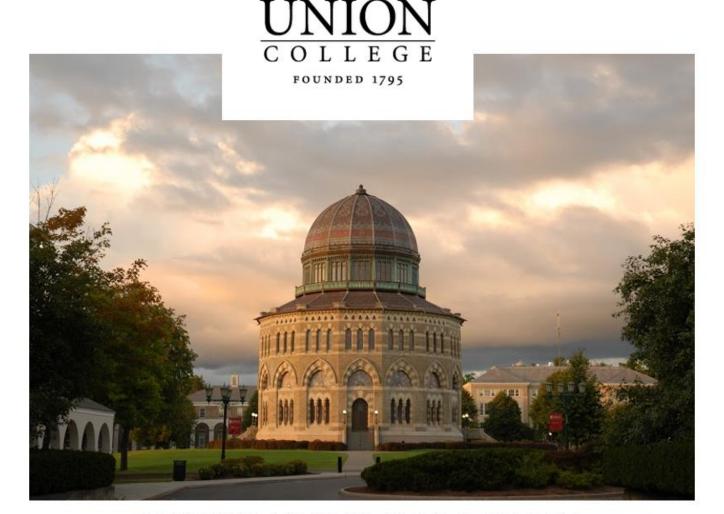








Tufts University



LEADING LIBERAL ARTS COLLEGE
WITH SCIENCE, ENGINEERING AND TECHNOLOGY

Union College



Union College



Uníon College



University of Chicago



University of Chicago



University of Chicago





UNIVERSITY OF MIAMI

COLLEGE of ENGINEERING



University of Miami



UNIVERSITY OF MIAMI
COLLEGE OF ENGINEERING



University of Miami



UNIVERSITY OF MIAMI
COLLEGE of ENGINEERIN



University of Miami

University of Pennsylvania Philadelphia, PA

- Need-blind Admissions
- Meets 100% of demonstrated financial need, through all-grant financial aid
- Common Application
- Early Decision
- Application Deadlines
 - Early Nov. 1
 - Regular Jan. 5
- Testing Requirements
 - SAT or ACT
 - Subject Tests recommended
- Interviews highly recommended

www.admissions.upenn.edu

@PreviewingPenn



University of Pennsylvania



Penn Engineering

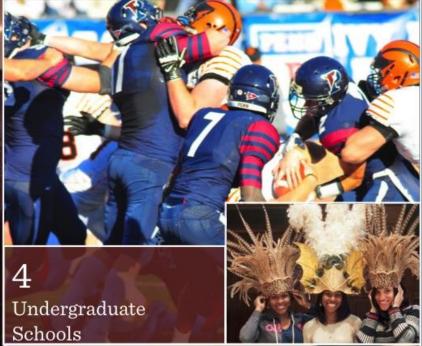
1,650 undergraduates

14 majors

5 specialized joint or dual-degree programs

119 faculty members

15 major research centers and institutes Applicants highly encouraged to have advanced calculus and physics





University of Pennsylvania



University of Pennsylvania





Wentworth Institute of Technology



Quick Facts

- Private co-educational institution founded in 1904
- 31-acre residential campus in Boston, MA
- 18 Bachelor's degree programs, 19 minors
- 7 Master's degree programs
- 4,457 students, 3,988 full-time undergraduate students
- Average class size: 21
- All undergraduate students complete two semesters of cooperative learning (co-op).
- 98% of surveyed graduates accepted a job or enrolled in a graduate degree program within six months of graduation (over the last four years)



Wentworth Institute of Technology



The Five Factors of Career Success at Wentworth

- Focused Academics
- Cooperative Learning
- Innovation & Entrepreneurship
- Collaboration & Partnerships
- Ideal Location



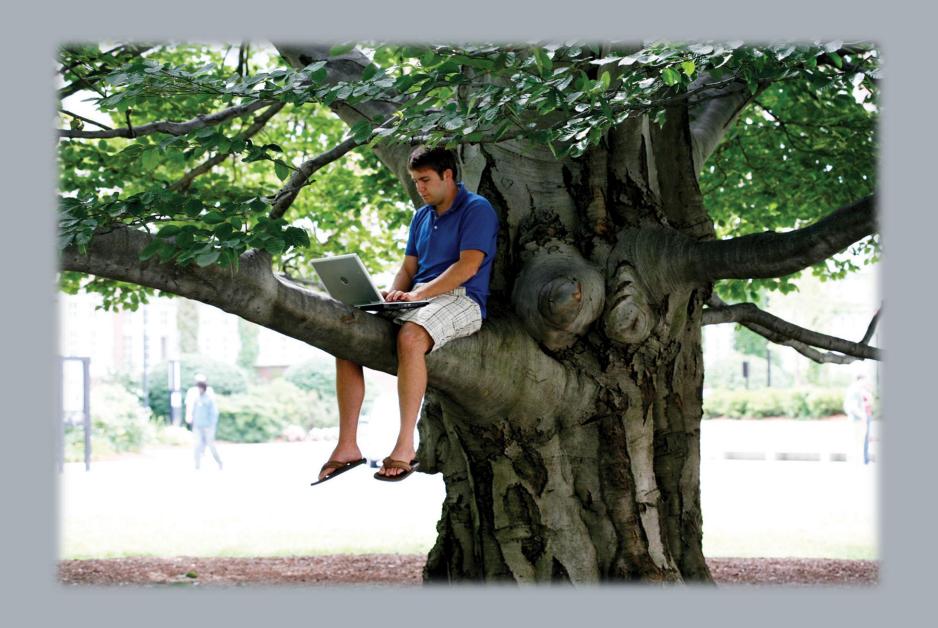
Wentworth Institute of Technology



Worcester Polytechnic Institute



Worcester Polytechnic Institute



Worcester Polytechnic Institute