#### UNIVERSITY OF PITTSBURGH | SWANSON SCHOOL OF ENGINEERING | BIOENGINEERING



"During these difficult times, it is important to remember the role of an engineer – to innovate and find solutions for unmet needs in the real world and provide advancements that will impact lives across the globe."

Sanjeev G. Shroff, PhD Distinguished Professor of and McGinnis Chair in Bioengineering

# **Professional Master of Science in Bioengineering**

Emphasis on Medical Product Engineering

Deadline Extended for Fall 2020 Admissions

## WHY STUDY MPE AT THE UNIVERSITY OF PITTSBURGH?

Pitt's professional **MS in Bioengineering** program, dedicated to **Medical Product Engineering** applies engineering innovation to the identification of and solution to challenges in health care delivery in the medical industry. Students have the opportunity to work with the renowned University of Pittsburgh Medical Center in a city that has been named a U.S. tech hub to watch.

The program is offered by Pitt's nationally ranked Department of Bioengineering (#12, *U.S. News and World Report*) in conjunction with the University of Pittsburgh Center for Medical Innovation (CMI). We offer hands-on, practical experience in medical product design and development that will prepare you for an industrial or academic career in the medical product engineering sector, which is expected to see a **23 percent growth in the next ten years**, according to the Bureau of Labor Statistics.

The 30-credit MS program leads student teams through all the steps to developing new products for the clinical marketplace. Through lectures, industry workshops, and real-world projects guided by highly-supportive clinical mentors, our students learn to apply methods of problem discovery and structured ideation to develop innovative solutions.

Upon graduation, 77 percent of our students enter industry careers with the remainder going to further graduate work, medical school, and other related fields. Within 6 months of graduation, 95 percent of the MS students wishing to join industry found employment at a mean starting annual salary of \$85,000.

## TRANSLATIONAL RESEARCH PROGRAMS IN THE SWANSON SCHOOL

The Center for Medical Innovation (CMI) can help launch the careers of MS students. Since its inception in 2012, the CMI has invested over \$1.4M in 73 projects to develop novel medical technologies for the healthcare market. The MS program is a part of the educational mission of the CMI to train the next generation of medical product innovators, managers, and developers.

In collaboration with Pitt's Innovation Institute, the Coulter Program is an on-campus biomedical accelerator housed in the Department of Bioengineering. They provide support to researchers interested in the commercial translation of their biomedical innovations.

A postsecondary degree can help protect against unemployment during times of economic downturn. Become a competitive candidate in the job market by boosting your resume with an **MS in Bioengineering** specializing in medical product engineering.

The COVID-19 pandemic has engendered a wave of new and adaptive technologies to address the need for personal protective equipment (PPE), ventilators and other innovations – some of which were developed here at the University of Pittsburgh and the Swanson School of Engineering.

## ADMISSIONS REQUIREMENTS

A Bachelor of Science degree in a STEM discipline.

*Deadline for Fall 2020 admissions June 15, application fee waived.* 

FOR MORE INFORMATION AND TO APPLY engineering.pitt.edu/ graduate



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"The MS program taught me to think like an entrepreneur without losing my scientific mind."

## **Professional Master of Science in Bioengineering**

Emphasis on Medical Product Engineering (continued)

#### Required for professional MS (30 credits)

- Four courses in Medical Product Engineering/Innovation (12 credits)
- Medical Ethics (3 credits)
- Graduate Engineering Mathematics or Statistics (3 credits)
- Graduate Engineering/Science Electives (12 credits)

Full-time students are recommended to complete a part-time internship (paid, unpaid, or for credit) with an industry partner or related entity. The schedule of classes currently offered are listed on our website at **engineering.pitt.edu/courses**.

The 30-credit MS program can be completed in 12-16 months as a full-time student, depending on participation in an internship.

#### Dual Degree – MBA/MS

Take your MS degree to the next level through Pitt's **Dual MBA/MS-Engineering** Joint-Degree Program offered by the Joseph M. Katz Graduate School of Business and the Swanson School of Engineering. Contact persons listed to the right or visit **katz.business.pitt.edu/mba/joint-and-dual/engineering** for more information about this program's application requirements.

#### Graduate Certificate in Medical Product Innovation (C-MPI)

For those seeking a shorter alternative to the MS program, we offer a 15-credit Graduate Certificate in Medical Product Innovation (C-MPI) program. Anyone who holds at least a 4-year baccalaureate degree is eligible to apply. This is a great option for working professionals in the healthcare industry looking to enrich their career.

#### Required for Graduate Certificate in Medical Product Innovation (15 credits)

- Two courses in Medical Product Innovation (6 credits)
- Medical Ethics (3 credits)
- Entrepreneurship/Engineering Management (3 credits)
- Legal Aspects of Medical Product Innovation (3 credits)

DELIVERY	TOTAL CRED
• On-Campus	• MS-30
	• C-MPI – 15

#### EDITS ENTRANCE EXAM

- GRE (*waived for Fall*
- 2020 admissions)

  TOEFL (required for international students)

### ADDITIONAL ADMISSIONS REQUIREMENTS

- Minimum two letters of recommendation (optional for Fall 2020 admissions)
- Unofficial transcripts

For more information, please contact:

#### KILICHAN GURLEYIK, DSc Education Director, CMI Assistant Professor of Bioengineering

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Senior Manager of Graduate Engineering Program Recruitment

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#### **University of Pittsburgh**

Swanson School of Engineering Department of Bioengineering Benedum Hall | 3700 O'Hara Street Pittsburgh, PA 15261



#### engineering.pitt.edu/bioengineering



## engineering.pitt.edu/cmi

The information printed in this document was accurate to the best of our knowledge at the time of printing and is subject to change at any time at the University's sole discretion.

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