



“Become a Pitt Bioengineer to combine your creativity, innovation, technical skills, and passion for healthcare to advance medical products.”

— Sanjeev Shroff, PhD  
 Bioengineering Department Chair, Gerald E. McGinnis Chair  
 and Distinguished Professor of Bioengineering

## Professional Master of Science in Bioengineering Neural Engineering Focus

### WHY STUDY NEURAL ENGINEERING AT THE UNIVERSITY OF PITTSBURGH?

Pitt is a recognized leader in the emerging discipline of Neural Engineering. Our core faculty and clinical collaborators offer courses that prepare students to work in this exciting and dynamic field. Neural Engineering, encompassing areas such as neural prosthetics, brain-computer interface systems, epilepsy monitoring, deep brain stimulation, engineering approaches to psychiatric disorders, and brain-inspired computation and device design, is a fast-growing field that provides clinical and technological benefits.

The program is offered by Pitt’s nationally ranked Department of Bioengineering (#10 Public University *U.S. News and World Report*). Instruction will be in-person and online. The 30-credit program can be completed in one year of full-time study. Students will garner a deep knowledge of the biology of the nervous system, and how, from an engineering perspective, to treat disorders, build clinical devices, and build computational models. The non-thesis program is designed to provide excellent training for industry in Neural Engineering or related fields such as Medical Devices or Data Science.

### CONCENTRATIONS

Neural engineering students will pursue didactic coursework that builds core competency in at least two of the following areas; including, but not limited to:

- Brain-computer interfaces
- Neural tissue interface
- Neural imaging and signals
- Neural devices and neuromorphic engineering

The concentrations for core competency will be selected in consultation with the program director and will take into consideration the student’s previous training and career aspirations.

### REQUIREMENTS FOR PROFESSIONAL MS (30 credits, typically 10 courses)

- 12 credits in Concentration 1
- 3 credits in Life Sciences
- 3 credits in Mathematics/Statistics
- 9 credits in Concentration 2
- 3 credits in Medical Ethics

DELIVERY	ENTRANCE EXAM	ADDITIONAL ADMISSIONS REQUIREMENTS
<ul style="list-style-type: none"> <li>• On-Campus</li> </ul>	<ul style="list-style-type: none"> <li>• GRE optional</li> <li>• TOEFL, IELTS or Duolingo scores (<i>required for international students</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum two letters of recommendation</li> <li>• College transcripts</li> </ul>

A postsecondary degree provides excellent preparation for a fast-growing industry position in Neural Engineering, or it can help you to prepare for a PhD.

### ADMISSIONS REQUIREMENTS

A Bachelor of Science degree in a quantitative STEM discipline. The application process is competitive.

**Deadline for Fall Admissions:**  
**June 15 (Domestic), April 1 (International)**

### FOR MORE INFORMATION AND TO APPLY

[engineering.pitt.edu/graduate](http://engineering.pitt.edu/graduate)

For more information, please contact:

**PRATAP KHANWILKAR, PhD**  
 Program Coordinator  
[msne@pitt.edu](mailto:msne@pitt.edu)

**STEPHANIE OPALINSKI, MBA**  
 Director of Engineering Graduate Recruitment  
 and Enrollment Marketing  
**412-383-7027 | [stephanie.opalinski@pitt.edu](mailto:stephanie.opalinski@pitt.edu)**

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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](http://engineering.pitt.edu/bioengineering)