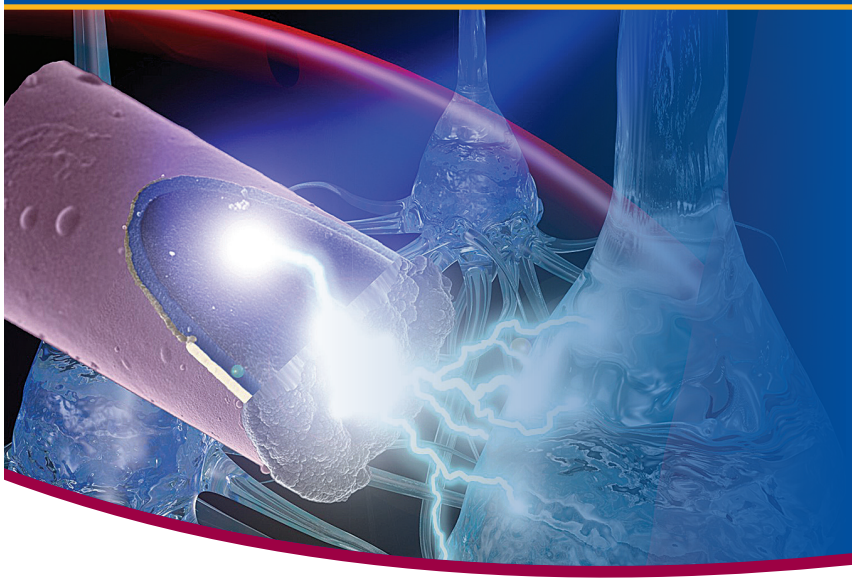

"During these difficult times, it is important to remember the role of an engineer – to innovate and find solutions for unmet needs in the real world and provide advancements that will impact lives across the globe."

– Sanjeev G. Shroff, PhD
McGinnis Chair of Bioengineering
Distinguished Professor of Bioengineering
University of Pittsburgh

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. 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:

- Brain-computer interfaces
- Neural imaging and signals
- Neural tissue interface
- 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
- 9 credits in Concentration 2
- 3 credits in Life Sciences
- 3 credits in Medical Ethics
- 3 credits in Mathematics/ Statistics

DELIVERY

- On-Campus

ENTRANCE EXAM

- GRE (*optional for Fall 2022 admissions*)
- TOEFL, IELTS or Duolingo scores (*required for international students*)

ADDITIONAL ADMISSIONS REQUIREMENTS

- Minimum two letters of recommendation
- College transcripts

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 STEM discipline. The application process is competitive.

FOR MORE INFORMATION AND TO APPLY

engineering.pitt.edu/graduate

For more information, please contact:

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PITT | SWANSON ENGINEERING
GRADUATE & ONLINE PROGRAMS

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