

Stephen R. Tritch

Nuclear Engineering Program

Professional Master of Science and Graduate Certificate

Offered on-campus and online

WHY STUDY NUCLEAR ENGINEERING AT THE UNIVERSITY OF PITTSBURGH?

With over 60 nuclear reactors under construction and 500 proposed plants worldwide, engineers with a strong background in nuclear power and safety and risk assessment are crucial to the future of the industry.* With this in mind, Pitt's Swanson School of Engineering proudly offers both a Master of Science (30-credits) and Graduate Certificate (15-credits) in Nuclear Engineering.

Western PA is home to utility generators, commercial R&D companies, and government agencies who have identified skills needed by the next generation of nuclear hires. Our program was created to address this need. Academics and industry professionals have collaborated to create the program's curriculum, which is continually improved to meet the needs of the advancing nuclear enterprise and is taught by senior leadership from the nuclear power industry.

The curriculum focuses on the different facets of nuclear power including energy generation, operations safety, and environmental issues and policy. By offering this program online, we provide students from around the globe the expertise of our region without ever setting foot on campus.

WHY SWANSON ONLINE?

Pitt's state of the art online technology makes it possible to attend lectures alongside our on-campus students. In combining our online and on-campus classes, we are able to create for you a collaborative learning environment of students with similar interests but diverse educational and professional backgrounds. The flexibility to attend an on-campus class, join a lecture online, or view a recorded lecture enables you to select the learning style that works best for you and your schedule.

*<http://www.world-nuclear.org/information-library/current-and-future-generation/nuclear-power-in-the-world-today.aspx>

ADMISSIONS REQUIREMENTS

BS in Engineering from an ABET-accredited university program,

OR

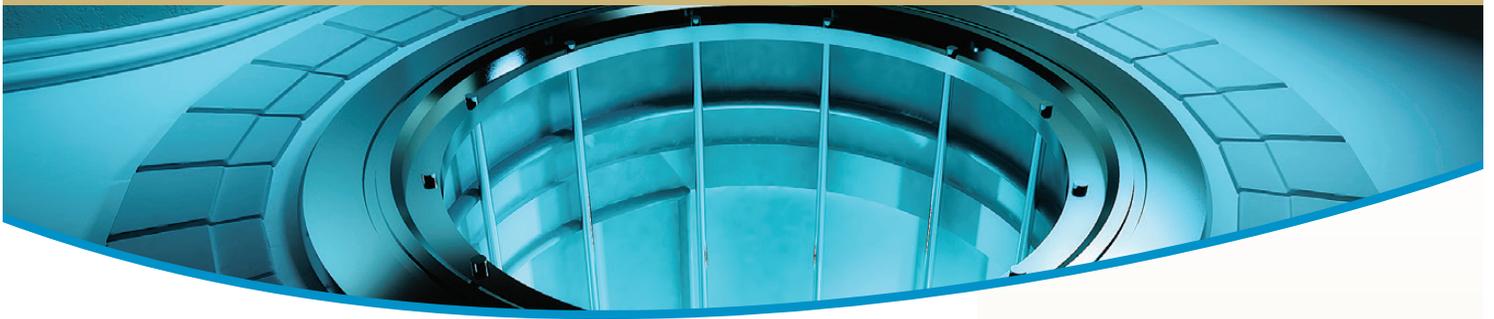
BS in other technical disciplines.

NOTE: *Candidates with other educational and professional backgrounds will be considered on an individual basis with strong emphasis given to academic promise, career orientation, work experience, and preparation in engineering and related disciplines. Additional coursework may be required to ensure skill set necessary for success in the program.*

FOR MORE INFORMATION

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

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ENGINEERING
GRADUATE & ONLINE PROGRAMS



Stephen R. Tritch Nuclear Engineering Program

Professional Master of Science and Graduate Certificate *(continued)*

Upon acceptance, you will be assigned a faculty advisor to help guide your studies. With limited formal credit requirements, you and your advisor can tailor the program to meet your educational goals. For the professional MS program, no thesis is required and there is only one required course. *We encourage all accepted students who come to us from a background other than nuclear engineering, to complete ME/ENGR 2100: Fundamentals of Nuclear Engineering early on in their studies.*

DELIVERY	TOTAL CREDITS	ENTRANCE EXAM	ADDITIONAL ADMISSIONS REQUIREMENTS
<ul style="list-style-type: none"> • On-Campus • Online 	<ul style="list-style-type: none"> • Masters – 30 • Certificate – 15 	<ul style="list-style-type: none"> • GRE* 	<ul style="list-style-type: none"> • Two Letters of Recommendation • Official Transcripts

Required for professional MS – one of the following three courses

ME/ECE 2646	Linear System Theory
ME 2001	Differential Equations – <i>on-campus only</i>
ME 2002	Linear and Complex Analysis – <i>on-campus only</i>

Courses offered to satisfy 30-credit MS and 15-credit certificate

ME/ENGR 2100	Fundamentals of Nuclear Engineering
ME/ENGR 2101	Nuclear Core Dynamics
ME/ENGR 2102	Nuclear Plant Dynamics and Control
ME/ENGR 2103	Integration of Nuclear Plants with the Reactor Core
ME/ENGR 2104	Nuclear Operations and Safety
ME/ENGR 2105	Integrated Nuclear Power Plant Operations – <i>on-campus only</i>
ME/ENGR 2110	Nuclear Materials
ME/ENGR 2115	Heat Transfer and Fluid Flow in Nuclear Power Plants

Course topics offered with variable frequency to satisfy 30-credit MS and 15-credit certificate

- Nuclear Quality Assurance Management
- Nuclear Chemistry and Radiochemistry
- Radiation Detection and Measurement (*on-campus only*)
- Boiling Water Reactor Thermal-Hydraulics and Safety
- Computational Radiation Transport
- Mathematical Modeling of Nuclear Plants
- Management Principles in Nuclear Power
- Case Studies in Nuclear Codes & Standards
- The Nuclear Fuel Cycle

The schedule of classes currently offered is listed on our website at engineering.pitt.edu/courses

*GRE requirement will be evaluated for those with a strong academic past and industry experience.

For more information about our Graduate Nuclear Programs, please contact:

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STEPHEN R. TRITCH
NUCLEAR ENGINEERING PROGRAM

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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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