A Premier Education from one of the Nation’s Leading Technological Universities

With demanding jobs and ambitious aspirations, students from across the country and the globe have found success studying Systems Engineering at Worcester Polytechnic Institute, one of the nation’s premier science- and engineering-focused universities.

Our interdisciplinary curriculum includes substantial course work developed by renowned faculty, in collaboration with practicing engineers. The program imparts a breadth of technical skills and provides a wide range of experience working with teams to design and implement complex systems. Whether online or in the classroom, students earn advanced degrees with the same rigor, quality content, and prestigious reputation that has made WPI a leading technological university for nearly 150 years.

WPI combines its strong foundation in science, engineering, and management with core components of systems design and development to create comprehensive master’s and advanced certificate programs in systems engineering.

Enhance Your Knowledge and Career

Employers support the WPI Systems Engineering program because they know graduates are well-prepared to take on major challenges. Many graduates advance in their current organizations or apply their enhanced skills to new opportunities. Among the organizations employing WPI alumni:

- BAE Systems
- General Dynamics C4 Systems
- General Dynamics Electric Boat
- Raytheon
- Jacobs Technology
- Naval Undersea Warfare Center
- iRobot
- United Technologies Corporation
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- U.S. Army Natick Soldier Research, Development, and Engineering Center
- Oracle
- Textron

Systems Engineering is rated “The Best Job in America.”

— Money/Payscale.com’s list of great careers

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Demand is soaring for systems engineers. Organizations recognize that complex engineering initiatives need to be holistically designed and managed over the full life cycle of the project. From developing and managing logistics, schedules, risks and opportunities, to leading teams and coordinating processes, systems engineers bring clarity and order to such endeavors, integrating both technical and human-centered disciplines.

Online or on-site at your company, our mission is clear—to provide an education that balances theory with practice and addresses the major social, scientific, and technological challenges of our times. Our programs are industry driven and continually evolving to provide a practical, applications-based learning experience. World-class professionals emerge prepared to lead teams of specialists on the forefront of diverse disciplines to better understand and solve problems.

Course work combines core concepts of systems engineering, systems integration, and systems design architecture with fundamentals of project management. Students select electives to create a customized program targeting the key areas of relevance to their interests and industries. Master of science studies culminate in WPI’s hallmark capstone experience in which students apply their academic skills and knowledge to solve real-world problems in collaboration with WPI faculty and industry mentors.

We understand how important flexibility is to working professionals seeking advanced degrees. Our courses are delivered online, at the workplace, and through a blend of web-based and classroom learning. Expectations for performance are high, but you will find a supportive faculty, committed to helping you meet the increased demands on your time and talent. Online courses are delivered via interactive virtual sessions, but as part of the WPI community, you will be connected to faculty, classmates, and resources that enhance your collegial learning experience.

"My graduate studies in systems engineering enabled me to combine my background as a mechanical engineer in the defense industry with my experience in commercial nuclear power into one powerful area of expertise. With a better strategic perspective and enhanced tools for execution, I was able to immediately apply what I learned directly to my projects at work."—Anne Glavan, Supervisor, Engineering Planning & Contract Change Evaluation, General Dynamics Electric Boat

"The systems engineering program at WPI has been invaluable to my career development. Through team assignments and case studies I quickly became familiar with systems engineering practices and tools that would have taken years to learn on the job. I’ve made valuable contributions to engineering process improvement and project execution much sooner in my career than I ever anticipated."—Morgan Kapp, Systems Engineering UTC Power Corporation

Our Master of Science in Systems Engineering is a 30-credit, interdisciplinary degree program. Students earning Graduate Certificates complete a subset of the MS curriculum, earning a total of 12 to 18 credits.

**Core Requirement (9 credits)**
- SY5 501 Concepts of Systems Engineering
- SY5 510 Systems Architecture
- SY5 511 Systems Integration and Test

**Management Requirement (6 credits)**
Students select two of the following:
- MS 576 Project Management*  
- OE 541 Operations Risk Management*  
- MS 582 Information Security Systems and Management  
- OE 554 Global Operations Strategy  
- SD 550 Systems Dynamics Foundation: Managing Complexity

*Students are required to complete at least one of these courses

**Depth Requirement (6 credits)**
Complete two additional 3-credit Systems Engineering graduate courses.

**Elective Courses (6 credits)**
Six credit hours are tailored to the specific needs of the student and the organization. Course options may include Computer Science, Engineering, Business, and Mathematics.

**Capstone Experience (3 credits minimum)**

For more information on specific degree programs, curriculum, and admissions requirements, visit cpe.wpi.edu/+systems
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