Master of Engineering in Systems Engineering and Technology Management

Transform systems and technology to achieve organizational goals and advance your career with a Master of Engineering in Systems Engineering and Technology Management.

Today’s complex organizations need leaders who can organize, analyze, and lead change in rapidly evolving environments. Rensselaer’s Master of Engineering in Systems Engineering and Technology Management prepares decision makers with broader and deeper capabilities to lead today’s most advanced operations.

Designed for working professionals, the program is taught by Rensselaer’s outstanding and highly-ranked engineering faculty. The program provides opportunities to learn through application. You choose projects that help propel you forward in your career. Students in the program are working professionals with a wide variety of backgrounds and experiences.

Are you ready to change the world? Then Rensselaer’s Master of Systems Engineering and Technology Management is right for you.

Degree Information:
The program results in a Master of Engineering in Systems Engineering and Technology Management degree from Rensselaer Polytechnic Institute.

Coursework in the program includes topics in project management, business issues, discrete event simulation, and systems modeling to prepare you as a well-rounded problem-solver.

The program is delivered using online and blended instruction designed to fit into the lives of busy professionals.

Professional Projects are applied projects students develop with faculty to demonstrate program mastery.

Accelerated Application Process:
A dedicated admissions officer will guide you through the process from start to finish as you prepare and submit required application components.

An admissions decision will be made within 2 weeks of application submission.

To get started, contact Education for Working Professionals Enrollment:

Email us: ewp@rpi.edu
Call us: 860-548-5331
Visit us online: ewp.rpi.edu

Online Application Requirements:
• Application
• Resume
• Personal Statement
• $75 Application fee

Additional Requirements:
• Official Transcripts
• Two letters of recommendation
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ISYE 4240</td>
<td><strong>Engineering Project Management:</strong> This course covers the aspects of defining, planning, implementing, and managing technical projects. Project Management Software is used extensively. Coursework will lead to understanding in a full spectrum of activities: project selection, writing RFPs, planning, stochastic analysis for risk estimation, budgeting, Earned Value Analysis, and control. Students will acquire a sound understanding of project management practice and will be equipped to take a lead role in projects.</td>
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<tr>
<td>ENGR 6100</td>
<td><strong>Business Issues for Engineers:</strong> Investigates business-related considerations in successfully commercializing new technology in a new venture or within an existing enterprise: market and customer analysis, beating the competition, planning and managing for profitability, high-tech marketing and sales, and business partnerships and acquisitions.</td>
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<td>ISYE 6620</td>
<td><strong>Discrete-Event Simulation:</strong> A development of a simulation language in order to progress through a series of increasingly sophisticated applications of computer simulation. Projects include production systems, inventory, finance, transportation, and public systems. The course includes model development, statistical analysis of simulation input/output data, validation planning, and managing simulation projects.</td>
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<td>ISYE 6610</td>
<td><strong>System Modeling in Decision Sciences:</strong> Decision science methodologies in the context of technical and economic decision problems. The course develops a conceptual framework for these methods in implementation. The course applies decision science methods to problem recognition and data development through problem formulation and computer solution.</td>
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<td>ENGR 6230</td>
<td><strong>Lean Six Sigma I:</strong> Builds the main perspectives of Lean Six Sigma including quality improvements, waste reduction, and best practices that ultimately lead to fewer defects and increased efficiency. Topics covered include the principles, qualitative methods and tools, process improvements, and problem solving techniques for improving existing business processes. The emphasis is on the Define, Measure, Analyze, Improve, and Control (DMAIC) phases of Lean Six Sigma.</td>
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<td>ENGR 6231</td>
<td><strong>Lean Six Sigma II:</strong> Comprehensive, state-of-the-art methodologies in design for Six Sigma (DFSS), integrated design, and lean business constructs in business environments - lean methods, total productive maintenance, measurement systems, new product development process, axiomatic design, design for sustainability, virtual product development, failure mode and effects analysis, and integrated risk management.</td>
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<td>ISYE 6600</td>
<td><strong>Design of Manufacturing System Supply Chains:</strong> Manufacturing systems and supply chains, lean manufacturing, lead time reduction in manufacturing and service operations, advanced pull systems, concurrent design of products and supply chains, rapid new product introduction, remanufacturing and reverse supply chains, and integration of information technology in supply chain operations. Analysis of models and application to design and planning problems in manufacturing and service systems is emphasized.</td>
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<td>MANE 4550</td>
<td><strong>Analysis of Manufacturing Processes:</strong> Manufacturing engineering including driving forces, quality attributes, tolerances, will be examined. Basic principles of mechanics, engineering materials, analysis of both bulk-forming (forging, extrusion, rolling) and sheet-forming processes, metal cutting, and other manufacturing processes will be explored. The role of computer-aided manufacturing in these areas will be addressed.</td>
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<td>ISYE 6970</td>
<td><strong>Professional Project (2):</strong> Over two separate semesters, students define and complete a master’s-level project under the supervision of a faculty adviser, leading to a master’s project report. The final report demonstrates the student’s mastery of the subject matter covered throughout the course of the degree program.</td>
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**Total Credit Hours:** 30