

# The H. Milton Stewart School of Industrial & Systems Engineering at Georgia Tech

is the largest academic program of its kind in the world, with a strong foundation in optimization, stochastics, simulation, and statistics. Students and our internationally renowned faculty formulate and analyze abstract models of complex systems in order to improve the performance of these systems, arising in many operational settings including supply chain logistics, transportation, finance, healthcare, telecommunications, manufacturing, humanitarian relief, security, sustainability, and others. Our strengths in education, emphasis on interdisciplinary collaboration, and strong discovery-to-application philosophy have enabled us to achieve a premier position in the field. The school grants around 300 BS degrees, 215 MS degrees, and 30 PhD degrees per year.

## Highlights

- Number one graduate program in Industrial Engineering for the last 21 years, according to *U.S. News & World Report (2012)*
- Number one undergraduate program in Industrial Engineering for the last 17 years, according to *U.S. News & World Report (2012)*
- Largest Industrial (or similarly named) Engineering program in the country; the second largest is not even half our size
- Our alumni can be found around the globe in leadership positions within academia, consulting, engineering, financial services, healthcare, law, manufacturing, retailing, transportation, and more.

## Enrollment (as of Fall 2011)

Bachelor's 1259; Master's 252; Doctoral 169

## Students

Females account for 34%, African Americans account for 3%, and Hispanics/Latinos account for 9% of the ISyE student body.

## Faculty

Academic and Research Faculty: 50

## Degree Programs

### Undergraduate:

Bachelor of Science in Industrial Engineering with specialties in:

- Economic and Financial Systems
- General Industrial Engineering
- Operations Research
- Quality and Statistics
- Supply Chain Engineering

### Graduate - Master's:

- Master of Science in Health Systems
- Master of Science in Industrial Engineering
- Master of Science Operations Research
- Master of Science in Quantitative and Computational Finance
- Master of Science in Statistics
- Master of Science in Computational Science Engineering

- Master of Science in Supply Chain Engineering
- Dual Master's Degree Program with the National University of Singapore

### Executive Master's:

- Executive Master's in International Logistics

### Graduate-Doctorate:

- PhD in Industrial Engineering with concentrations in:
  - Statistics
  - Supply Chain Engineering
  - Economic Decision Analysis
  - System Informatics and Controls
  - Human - Integrated Systems
- PhD in Operations Research
- PhD in Algorithms, Combinatorics & Optimization
- PhD in Computational Science Engineering
- PhD in Bioinformatics

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GLANCE 2011

Georgia  
Tech



College of  
Engineering

H. Milton Stewart School  
of Industrial and Systems Engineering

[www.isye.gatech.edu](http://www.isye.gatech.edu)

**Chair**

H. Milton & Carolyn J. Stewart School Chair and Professor

**Associate Chair**

Associate Chair for Graduate Studies and Professor

**Associate Chair**

Associate Chair for Undergraduate Studies and Associate Professor

**Associate Chair**

Associate Chair of Industry and International Programs

**Opportunities for Involvement**

- Alumni Events
- Career Fair and Job Postings
- Class Presentations and Panels
- Senior Design Projects
- Student Group Sponsorships
- Scholarships, Fellowships, and Student Awards
- Faculty and Research Center Collaborations and Support

- Executive Master's in International Logistics
- Supply Chain & Logistics Professional Education Courses

For more information contact:  
Nancy Sandlin  
Director of Development  
404.385.7458

**Prominent Research****Major Research Centers:**

- The Supply Chain & Logistics Institute (SCL)  
[www.scl.gatech.edu](http://www.scl.gatech.edu)  
Research and education programs in supply chain, transportation, and e-logistics. Formerly known as The Logistics Institute.
- Tennebaum Institute (TI) [www.ti.gatech.edu](http://www.ti.gatech.edu)  
Multidisciplinary center uniting academic, government, and corporate experts to create industry shaping business models.
- The Logistics Institute Asia-Pacific (TLI A-P)  
[www.tliap.nus.edu.sg](http://www.tliap.nus.edu.sg)  
Partnership between National University of Singapore and the Georgia Institute of Technology for research and education programs in global logistics.
- Health Systems Institute (HSI) [www.hsi.gatech.edu](http://www.hsi.gatech.edu)  
Creating a new model for healthcare delivery through integrative interdisciplinary solutions, drawing from medicine, engineering, computing, management, and public policy.

The following is a sample of current, active research areas and concentrations represented by the Stewart School of ISyE:

**Applications:**

- Bioinformatics
- Biostatistics/Medical Operations Research
- Financial Modeling: Asset Valuation & Risk Management
- Health Systems
- Highway Traffic Flow
- Humanitarian Relief
- Logistics & Supply Chain Management: Airline Fleet Assignment & Routing, Capacity Planning, Revenue Management & Dynamic Pricing, Supply Chain Coordination & Control
- Manufacturing
- Nanotechnology
- Natural Systems
- Security
- Sports Modeling
- Sustainability
- Telecommunications
- Transportation Systems

**Methodology:**

- Algorithmic Game Theory
- Combinatorial Optimization
- Convex Optimization
- Data Mining
- Large-Scale Mixed Integer Programming
- Markov Processes
- Multivariate Statistical Analysis
- Nonparametric Estimation
- Semidefinite Programming
- Sequential Analysis
- Statistical Output Analysis
- Stochastic Programming/Optimization

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