

Graduate Programs - I

List of Programs

Program areas are in italics; Concentrations are indented below the programs.

THE CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING

Chemical, Biomedical and Materials Engineering Department

- *Chemical Engineering, M.Eng., CH.E., Ph.D.*
 - Chemical Engineering
 - Polymer Engineering
- *Materials Engineering, M.Eng., Ph.D.*
 - Microelectronics and Photonics Science and Technology (Interdisciplinary)

Civil, Environmental and Ocean Engineering Department

- *Civil Engineering, M.Eng. *, C.E. *, Ph.D. ******
 - Geotechnical/Geoenvironmental Engineering
 - Structural Engineering
 - Water Resources Engineering
- *Construction Management, M.S. (Interdisciplinary) **
- *Environmental Engineering, M.Eng. *, Ph.D. ******
 - Environmental Process
 - Groundwater and Soil Pollution Control
 - Inland and Coastal Environmental Hydrodynamics
- *Maritime Systems, M.S. **
 - Environmental Engineering
 - Structural Engineering
 - Management
 - Marine Transportation
- *Ocean Engineering M.Eng. *, Ph.D. ******
 - Coastal Engineering
 - Hydrodynamics
 - Naval Architecture
 - Oceanography

Electrical and Computer Engineering Department

- *Computer Engineering, M.Eng., CP.E., Ph.D.*
 - Computer Systems
 - Data Communications and Networks
 - Digital Systems Design
 - Image Processing and Multimedia
 - Software Engineering
- *Electrical Engineering, M.Eng., E.E., Ph.D.*
 - Computer Architecture and Digital System Design
 - Microelectronics and Photonics Science and Technology (Interdisciplinary)

- Signal Processing for Communications
- Telecommunications Engineering
- Wireless Communications
- *Networked Information Systems, M.Eng.*
 - Data Communication Networks
 - Information Networks
 - Multimedia Information Systems
 - Multimedia Technologies
 - Network Systems Technologies
 - Networked Information Systems: Business Practices
 - Business Practices
 - Secure Network Systems

Mechanical Engineering Department

- *Mechanical Engineering, M.Eng. **, M.E. **, Ph.D. ***
 - Manufacturing Systems
 - Product Design
 - Thermal Engineering
- *Integrated Product Development, M.Eng. ***
 - Armament Engineering
 - Electrical and Computer Engineering
 - Manufacturing Technologies
 - Systems Reliability and Design
- *Product Architecture and Engineering, M.Eng. ***

Systems Engineering and Engineering Management

- *Engineering Management, M.Eng., Ph.D.*
- *Systems Engineering, M.Eng., Ph.D.*

THE ARTHUR E. IMPERATORE SCHOOL OF SCIENCES AND ARTS

Chemistry and Chemical Biology Department

- *Chemical Biology, M.S.*
 - Bioinformatics
- *Chemistry, M.S., Ph.D.*
 - Analytical Chemistry
 - Chemical Biology
 - Organic Chemistry
 - Physical Chemistry
 - Polymer Chemistry

Computer Science Department

- *Computer Science, M.S. ***, Ph.D. ******
 - CyberSecurity
 - Quantitative Software Engineering
- *Quantitative Software Engineering, M.S. **

Mathematical Sciences Department

- *Applied Mathematics, M.S.*
- *Mathematics, M.S., Ph.D. ******
- *Stochastic Systems Analysis and Optimization, M.S.*

Physics and Engineering Physics Department

- *Engineering Physics, M. Eng. ***
 - Engineering Physics
 - Engineering Physics (Applied Optics)
 - Engineering Physics (Solid State)
 - Microelectronics and Photonics Science and Technology (Interdisciplinary)
- *Physics, M.S. **, Ph.D. ***
 - Physics

THE WESLEY J. HOWE SCHOOL OF TECHNOLOGY MANAGEMENT

- *Executive Master of Business Administration in Technology Management, E.M.B.A. in TM*
- *Executive Master of Technology Management, E.M.T.M.*
- *Master of Business Administration in Technology Management, M.B.A. in TM*
 - Engineering Management
 - Financial Engineering
 - Global Technology Management
 - Information Management
 - IT in Financial Services Industry
 - IT in Pharmaceutical Industry
 - Project Management
 - Telecommunications Management
- *Management, M.S. *****
 - General Management
 - Global Innovation Management
 - Human Resource Management
 - Information Management (also Ph.D. ****)
 - Project Management
 - Technology Management (also Ph.D. ****)
- *Information Systems, M.S. *****
 - Computer Science (Interdisciplinary)***
 - E-Commerce***
 - Entrepreneurial IT***
 - Financial Services
 - Global Innovation Management
 - Human Resource Management
 - Information Management (also Ph.D. ****)
 - Information Security
 - Integrated Information Architecture (Interdisciplinary)
 - Pharmaceuticals
 - Project Management
 - Quantitative Software Engineering (Interdisciplinary)
 - Systems Engineering (Interdisciplinary)
 - Telecommunications Management
- *Telecommunications Management, M.S.*

- Business Track
- Global Innovation Management
- Management of Wireless Networks
- On-line Security, Technology and Business
- Project Management
- Technical Management Track

INTERDISCIPLINARY

*Interdisciplinary, M.S. **, M. Eng. **, Ph.D. ***

All Interdisciplinary students select two Program Areas.

* GRE is only required for international students and those applying for a fellowship or assistantship.

** GRE is recommended but not required.

*** GRE is required for international students, those applying for a fellowship or assistantship and those without an academic Computer Science background.

**** GMAT or GRE is required for Ph.D. students, international students and those applying for a fellowship or assistantship.

***** GRE is required.

Graduate Certificate Programs

All credits earned toward Graduate Certificates may be applied toward a Master's degree.
Most Graduate Certificates are four graduate courses.

THE CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING

Chemical, Biomedical and Materials Engineering Department

Customized programs are available.

- Biomedical Engineering
- Microdevices and Microsystems (Interdisciplinary)
- Microelectronics (Interdisciplinary)
- Pharmaceutical Manufacturing Practices (Interdisciplinary)
- Photonics (Interdisciplinary)

Civil, Environmental and Ocean Engineering Department

- Atmosphere and Environmental Science and Engineering
- Construction Accounting/Estimating
- Construction Engineering
- Construction Law/Disputes
- Construction/Quality Management
- Environmental Compatibility in Engineering
- Environmental Hydrology
- Environmental Process
- Geotechnical Engineering
- Hydraulics
- Inland and Coastal Environmental Hydrodynamics
- Soil and Groundwater Pollution Control
- Structural Engineering
- Surface Water Hydrology
- Water Resources Engineering
- Water Quality Control

Electrical and Computer Engineering Department

- Computer and Communications Security
- Digital Signal Processing
- Digital Systems and VLSI Design
- Information Networks
- Information Systems Security
- Microdevices and Microsystems (Interdisciplinary)
- Microelectronics (Interdisciplinary)
- Multimedia Technologies
- Networked Information Systems
- Photonics (Interdisciplinary)
- Satellite Communications Engineering (Interdisciplinary)

- Secure Network Systems Design
- Wireless Communications
- Wireless Computing

Mechanical Engineering Department

- Advanced Manufacturing
- Air Pollution Technology
- Computational Fluid Mechanics and Heat Transfer
- Design and Production Management
- Ordinance Engineering
- Pharmaceutical Manufacturing Practices (Interdisciplinary)
- Power Generation
- Product Architecture and Engineering
- Robotics and Control
- Structural Analysis and Design
- Vibration and Noise Control

Systems Engineering and Engineering Management Department

- Agile Systems Engineering and Design
- Economic Systems
- Engineering Management
- Systems and Supportability Engineering
- Systems Design and Operational Effectiveness
- Systems Engineering and Architecting
- Telecommunications Systems Engineering
- Value Chain Enterprise Systems

THE ARTHUR E. IMPERATORE SCHOOL OF SCIENCES AND ARTS

Chemistry and Chemical Biology Department

- Analytical Chemistry
- Bioinformatics
- Biomedical Chemistry
- Chemical Biology
- Chemical Physiology
- Laboratory Methods in Chemical Biology
- Polymer Chemistry

Computer Science Department

- Computer Architecture and Software Design
- Computer Graphics
- CyberSecurity
- Database Systems
- Distributed Systems
- Elements of Computer Science ‡
- Quantitative Software Engineering
- Software Design
- Theoretical Computer Science

Humanities and Social Sciences Department

- Professional Communications

Mathematical Sciences Department

- Applied Statistics
- Financial Engineering
- Stochastic Systems

Physics and Engineering Physics Department

- Applied Optics
- Microdevices and Microsystems (Interdisciplinary)
- Microelectronics (Interdisciplinary)
- Photonics (Interdisciplinary)
- Satellite Engineering (Interdisciplinary)
- Surface Physics

THE WESLEY J. HOWE SCHOOL OF TECHNOLOGY MANAGEMENT

- E-Commerce
- Engineering Management
- Entrepreneurial IT
 - Global Innovation Management
- Human Resource Management
- Information Management
- Information Security
- IT for Financial Services Industry
- IT for Pharmaceutical Industry
- Management of Wireless Networks
- Project Management
- Technology Management
- Telecommunications Management

‡ No credit is given toward the Master of Science in Computer Science for CS 550, CS 580, CS 590 and Ma 502.

Corporate Site Graduate Programs

ADP - Parsippany, NJ

(99 Jefferson Rd.)

M.S. in Information Systems (MS/IS)

ADP - Parsippany, NJ

(15 Waterview Blvd.)

Project Management* (Graduate Certificate)

BAE Systems, CNI - Wayne, NJ

Electrical Engineering (M. Eng. in Electrical Engineering) †

Project Management (Graduate Certificate)

Systems Engineering (Graduate Certificate)

BASF - Mt. Olive, NJ

M.S. in Information Systems* (MS/IS)

Boeing – All Boeing Locations

Project Management* (M.S. in Management with Project Management Concentration)

Bristol-Myers Squibb - Skillman, NJ (and Merrill Lynch employees)

M.S. in Information Systems* (MS/IS)

Citigroup – New York, NJ

M.S. in Information Systems* (MS/IS)

Ethicon – Somerville, NJ

Engineering Management (Graduate Certificate)

Fort Monmouth - Eatontown, NJ

Computer Engineering* (M.Eng. in Computer Engineering)

CyberSecurity* (Graduate Certificate)

Electrical Engineering* (M.Eng. in Electrical Engineering) †

Networked Information Systems* (M.Eng. in Networked Information Systems)

Systems Engineering* (Graduate Certificate/M. Eng. in Systems Engineering)

Foster Wheeler - Clinton, NJ

Project Management (Graduate Certificate/M.S. in Management)

General Dynamics – Florham Park, NJ

Interdisciplinary Master's Degree in Physics* (MS)

GlaxoSmithKline - Parsippany, NJ

Project Management (M.S. in Management)

Hanover Marriott – Whippany, NJ

M.S. in Information Systems* (MS/IS)

Headquarters Plaza Hotel – Morristown, NJ

Executive Master of Technology Management (EMTM)

Holiday Inn – Tinton Falls, NJ

Executive Master of Technology Management (EMTM)

Intel - Parsippany, NJ

Computer Architecture and Software Design* (Graduate Certificate)

Computer Science* (M.S. in Computer Science)

ITT - Clifton, NJ

Computer Science* (M.S. in Computer Science)

Digital Signal Processing* (Graduate Certificate)

Project Management* (Graduate Certificate)

Systems Engineering* (Graduate Certificate)

Johnson & Johnson - New Brunswick, NJ

M.S. in Information Systems* (MS/IS)

Lockheed Martin - Moorestown, NJ

CyberSecurity* (Graduate Certificate)

Information Management* (Graduate Certificate/M.S. in Management)

Project Management* (Graduate Certificate/M.S. in Management)

Quantitative Software Engineering* (Graduate Certificate)

Software Design* (Graduate Certificate/M.S. in Computer Science)

Merck & Co. – Rahway, NJ and Whitehouse Station, NJ

M.S. in Information Systems* (MS/IS)

National Security Agency (NSA) – Columbia, MD

Systems Design and Operational Effectiveness*

Naval Air Engineering Station - Lakehurst, NJ

Systems Engineering (Graduate Certificate/M.Eng./Ph.D. in Systems Engineering)

NECA (National Exchange Carrier Association) - Whippany, NJ

Telecommunications Management (Graduate Certificate/M.S. in Telecommunications Mgmt.)

Patuxent River Naval Base – Patuxent River, MD

Systems Design and Operational Effectiveness*

Picatinny Arsenal - Dover, NJ

Integrated Product Development (M.Eng. in IPD)

Mechanical Engineering (Graduate Certificate/M.Eng. in Mechanical Engineering)

Quantitative Software Engineering (MS in QSE)

Prudential - Newark, Roseland, NJ

M.S. in Information Systems* (MS/IS)

PSE&G - Newark, NJ

M.S. in Information Systems* (MS/IS)

Ramsey Middle School - Ramsey, NJ

M.S. in Information Systems (MS/IS)

Raritan Valley Community College - North Branch, NJ
Pharmaceutical Manufacturing Practices (Graduate Certificate)

Schering-Plough – Kenilworth, NJ
Pharmaceutical Manufacturing Practices* (Graduate Certificate)

UBS/PaineWebber - Weehawken, NJ
M.S. in Information Systems* (MS/IS)

Unilever Bestfoods North America - Englewood Cliffs, NJ
M.S. in Information Systems* (MS/IS)

Verizon - Thousand Oaks, CA; Marlboro, MA and Manchester, NH; Baltimore, MD and Silver Spring, MD; Freehold, NJ; New York, NY; Patchogue, NY; Philadelphia, PA; Irving, TX; Everett, WA
Telecommunications Management* (Graduate Certificate/M.S. in Telecommunications Mgmt.)

Verizon Wireless – Bedminster, NJ
Telecommunications Management* (M.S. in Telecommunications Management)

Verizon Wireless - Warren, NJ
M.S. in Information Systems* (MS/IS)

Program without asterisk - open to all Stevens students.

* Program at this site is open only to employees of this company.

† Entire degree is not offered at this site.