

Graduate Degree Programs

Concentrations are italicized and below the programs.

THE CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Chemical Engineering and Materials Science

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)*

Chemistry, Chemical Biology, and Biomedical Engineering Department

Chemical Biology, M.S., Ph.D.*****

- *Analytical Chemistry*
- *Chemical Biology*
- *Organic Chemistry*
- *Physical Chemistry*
- *Polymer Chemistry*

Chemistry, M.S., Ph.D.*****

- *Analytical Chemistry*
- *Chemical Biology*
- *Organic Chemistry*
- *Physical Chemistry*
- *Polymer Chemistry*

Biomedical Engineering, M.Eng., Ph.D.

Civil, Environmental, and Ocean Engineering Department

Civil Engineering, M.Eng.*, C.E.*, Ph.D.*****

- *Geotechnical/Geoenvironmental Engineering*
- *Hydrologic Modeling*
- *Stormwater Management*
- *Structural Engineering*
- *Water Resources Engineering*

Construction Management, M.S.*

Environmental Engineering, M.Eng.*, Ph.D.*****

- *Environmental Processes*
- *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*
- *Maritime Systems*
- *Naval Architecture*
- *Oceanography*

Computer Science Department

Computer Science, M.S.***, Ph.D.*****

- *Databases and Service-Oriented Architecture*
- *Databases, Security, and Privacy*
- *Health Informatics*
- *Mobile and Embedded Systems*
- *Network and Systems Administration*
- *Software and Security Engineering*
- *Software Engineering and Databases*
- *Web Application Development*

Enterprise Computing, M.S.***

- *Data Management and Service-Oriented Architecture*

- *Management*
- *Security and Privacy*
- *Software Engineering*
- *Systems Administration*

Multimedia Experience and Management, M.S.***

- *Multimedia Experience*
- *Multimedia Management*

Security and Privacy, M.S.***

- *Cybersecurity*
- *Enterprise Computing*

Service-Oriented Computing, M.S.***

- *Health Informatics*
- *Internet Software Engineering*
- *Software Engineering*

Electrical and Computer Engineering Department

Computer Engineering, M.Eng., CP.E., Ph.D.

- *Computer Systems*
- *Data Communications and Networks*
- *Digital Systems Design*
- *Engineered Software Systems*
- *Image Processing and Multimedia*
- *Information Systems*
- *Information Systems Security*

Electrical Engineering, M.Eng., E.E., Ph.D.

- *Computer Architecture and Digital Systems*
- *Microelectronics and Photonics Science and Technology (Interdisciplinary)*
- *Signal Processing for Communications*
- *Telecommunications Systems Engineering*
- *Wireless Communications*

Networked Information Systems, M.Eng.

- *Data Communication Networks*
- *Information Networks*
- *Multimedia Information Systems*
- *Multimedia Technologies*
- *Networked Information Systems: Business Practices*
- *Network Systems Technologies*
- *Secure Network Systems Design*

Mathematical Sciences Department

Applied Mathematics, M.S.

Mathematics, M.S., Ph.D.*****

Stochastic Systems, M.S.

Mechanical Engineering Department

Mechanical Engineering, M.Eng.*****, M.E.*****, Ph.D.*****

- *Manufacturing Systems*
- *Product Design*
- *Pharmaceutical Manufacturing*
- *Thermal Engineering*

Integrated Product Development,

M.Eng.(Interdisciplinary)**

- *Armament Engineering*
- *Manufacturing Technologies*
- *Systems Reliability and Design*

Product-Architecture and Engineering,

M.Eng.(Interdisciplinary)**

Pharmaceutical Manufacturing M.Eng.*****, M.Sc.*****

Physics and Engineering Physics Department

Engineering Physics, M.Eng.**

- *Applied Optics*
- *Solid State Physics*
- *Microelectronics and Photonics Science and Technology (Interdisciplinary)*

Physics, M.S.**, Ph.D.**

- *Physics*
- *Nanoscale Science and Technology (Interdisciplinary)*

THE SCHOOL OF SYSTEMS AND ENTERPRISES

Engineering Management, M.Eng., Ph.D.

Enterprise Systems, M.S., Ph.D.

Financial Engineering, M.S.

Infrastructure Systems, M.S., Ph.D.

M.B.A. in Technology Management (M.B.A.)

- *Engineering Management*
- *Financial Engineering*

Software Engineering, M.S.* **

Systems Engineering, M.Eng., Ph.D.

Space Systems Engineering, M.S.

THE WESLEY J. HOWE SCHOOL OF TECHNOLOGY MANAGEMENT

Master of Business Administration in Technology

Management for Experienced Professionals,

E.M.B.A. in TM

- *Supply Chain Management*

- *Systems Engineering (Interdisciplinary)*

- *Telecommunications Management*

Master of Technology Management for Experienced Professionals, E.M.T.M.

Service Management, M.S. ****

M.S.-M.B.A in Technology Management

M.B.A. in Technology Management*****

- *Engineering Management*
- *Enterprise Systems*
- *Financial Engineering*
- *Global Technology Management*
- *Information Management*
- *IT in Financial Services Industry*
- *IT in Pharmaceutical Industry*
- *Project Management*
- *Telecommunications Management*
- *Pharmaceutical Management*
- *IT Outsourcing*

Telecommunications Management, M.S. ** (also Ph.D.**)**

- *Business Management*
- *Global Innovation Management*
- *Management of Wireless Networks*
- *Online Technology, Business, and Security*
- *Project Management*
- *Technical Management*

Management, M.S.****

- *General Management*
- *Global Innovation Management*
- *Information Management (also Ph.D.****)*
- *Project Management*
- *Technology Management (also Ph.D.****)*
- *Pharmaceutical Management*
- *Technology Commercialization*

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.**

***** **GMAT or GRE is required (whichever is applicable).**

Information Systems, M.S.****

- *Business Process Management and Service Innovation*
- *Computer Science (Interdisciplinary)****
- *E-Commerce (Interdisciplinary)****
- *Enterprise Systems*
- *Entrepreneurial IT****
- *Global Innovation Management*
- *Healthcare IT Management*
- *Information Management (also Ph.D.****)*
- *Information Security (Interdisciplinary)*
- *Integrated Information Architecture (Interdisciplinary)*
- *IT in Financial Services*
- *IT in Pharmaceutical Industry*
- *IT Outsourcing Management*
- *Knowledge Management/Data Mining*
- *Legal Issues in IT*
- *Management Consulting*
- *Project Management*
- *Quantitative Software Engineering (Interdisciplinary)*
- *Service-Oriented Architecture*