May be completed on-campus and online
30 credits

MS REQUIRED COURSES
Students must successfully complete 30 credits as outlined below.

Core Courses (choose 3 courses to earn 9 credits)
- PTC 603 Identity, Technology & Comm. Available Online
- PTC 629 Theory and Practice of Social Media Available Online
- PTC 681 Technology in Class and Learning Available Online
- PTC 698 Digital Instruction Essentials Available Online

Master’s Project (3 credits) or Master’s Thesis (6 credits)

Track Courses (15-18 credits) See tracks available on other side of page. Students must successfully complete 15-18 credits in a chosen track. An additional elective is needed if the master’s project option is selected.

Program Advisor:
Dr. Andrew Klobucar, klobucar@njit.edu, 973-596-5724

How to Apply
Visit apply.njit.edu to start your application today!

35% Tuition Scholarship Opportunity
This NJIT award is available to K-12 teachers who are residents of NJ, NY, PA, or DE and enrolled in the Master’s Degree or Graduate Certificate in Applied Science programs. The recipient will receive up to 35% of his/her tuition charge in scholarship. The award is renewable for the duration of the program. A copy of your teaching license or letter of employment as a teacher from your school district must be submitted to admissions@njit.edu prior to enrollment to be considered. You must be a U.S. citizen or permanent resident to be eligible. You must maintain a minimum cumulative GPA of 3.0/4.0. Additional information is available at njit.edu/online/ms-applied-science.
## TRACKS

### Business
**Required Courses (3 credits)**
- MGMT 620 Management of Technology
**Additional Courses (choose 4 courses to earn 12 credits)**
- ECON 610 Managerial Economics
- FIN 600 Corporate Finance I
- FIN 624 Corporate Finance II
- MGMT 635 Data Mining and Analysis
- MGMT 640 New Venture Management
- MGMT 650 Knowledge Management
- MGMT 691 Legal and Ethical Issues
- MGMT 692 Strategic Management

### Computer Science
**Required Courses (6 credits)**
- CS 505 Programming, Data Structures & Algorithms
- CS 506 Foundations of Computer Science
**Additional Courses (choose 3 courses to earn 9 credits)**
- CS 610 Data Structures & Algorithms
- CS 630 Operating Systems Design
- CS 656 Internet & Higher-Layer Protocols

### Engineering Management
**Required Courses (6 credits)**
- EM 636 Project Management
- HRM 601 Organizational Behavior
**Additional Courses (choose 3 courses to earn 9 credits)**
- ACCT 615 Management Accounting
- IE 673 Total Quality Management
- MIS 645 Information Systems Principles
- EM 634 Legal, Ethical and Intellectual Property
- EM 637 Project Control
- EM 691 Cost Estimating for Capital Projects
- EM 632 Legal Aspects in Construction

### Information Systems
**Required Courses (6 credits)**
- IS 601 Web Systems Development
- IS 663 System Analysis and Design
**Additional Courses (choose 3 courses to earn 9 credits)**
- IS 631 Enterprise Database Management
- IS 665 Data Analytics for Information Systems
- IS 676 Requirements Engineering
- IS 678 IT Service Management
- IS 680 Information Systems Auditing
- IS 681 Computer Security Auditing
- IS 684 Business Process Innovation
- IS 688 Web Mining

### Engineering
**Required Courses (6 credits)**
- IE 604 Advanced Engineering Statistics
- IE 621 Systems Analysis and Simulation
**Additional Courses (choose 3 courses to earn 9 credits)**
- ECE 601 Linear Systems
- ECE 605 Discrete Event Dynamic Systems
- ECE 673 Random Signal Analysis I
- IE 618 Engineering Cost & Production Economics
- IE 672 Industrial Quality Control
- IE 673 Total Quality Management
- ME 616 Matrix Methods in Mechanical Engineering
- ME 632 Mechanical Engineering Measurements
- ME 635 Computer-Aided Design
- BME 669 Engineering Physiology
- BME 670 Intro to Biomedical Engineering

### Issues for Engineering Managers
- (6 credits)

### Additional Courses
- (choose 3 courses to earn 9 credits)
- (choose 3 courses to earn 9 credits)
- (choose 3 courses to earn 9 credits)
- (choose 4 courses to earn 12 credits)

### Graduate Certificates
**Five courses (15 credits)**

Successful completion of required courses and some additional courses to achieve 15 credits will result in an Applied Science graduate certificate in the corresponding track.

### Architecture
**Required Courses (6 credits)**
- ARCH 545G Structures I
- ARCH 548G Structures II
**Additional Courses (choose 3 courses to earn 9 credits)**
- ARCH 555G Architectural Graphics
- ARCH 500G Advanced Architectural Graphics
- ARCH 528G History of Architecture I
- ARCH 529G History of Architecture II
- ARCH 541G Construction I
- ARCH 542G Construction II
- ARCH 543G Environmental Control Systems I
- ARCH 544G Environmental Control Systems II
- ARCH 569G Building and Development

### Chemistry
**Required Courses (6 credits)**
- CHEM 605 Advanced Organic Chemistry
- CHEM 661 Instrumental Analysis Laboratory
**Additional Courses (choose 3 courses to earn 9 credits)**
- CHEM 673 Biochemistry
- CHEM 777 Principles of Medicinal Chemistry
- EVSC 616 Toxicology for Engineers and Scientists
- EVSC 610 Environmental Chemical Science

### Mathematics
**Required Courses (6 credits)**
- MATH 545 Introductory Mathematical Analysis
- MATH 546 Advanced Calculus
**Additional Courses (choose 3 courses to earn 9 credits)**
- MATH 611 Numerical Methods for Computation
- MATH 630 Linear Algebra and Applications
- MATH 660 Intro to Statistical Computing w/ SAS & R
- MATH 661 Applied Statistics

### Physics
**Required Course (3 credits)**
- PHYS 611 Advanced Classical Mechanics
**Additional Courses (choose 4 courses to earn 12 credits)**
- PHYS 621 Classical Electrodynamics
- PHYS 631 Quantum Mechanics I
- PHYS 641 Statistical Mechanics
- PHYS 661 Solid-State Physics
- PHYS 607 Topics in Astronomy and Cosmology

### Custom track
Students may develop an individual track in consultation with a graduate advisor. A coherent set of courses involving mathematics, computing, physics, chemistry, biology or engineering are expected.

Updated 2.1.2018