MSCEI DEGREE REQUIREMENTS FORM

First Name: _______________ Last Name: _______________ N number#: _______________

The MSCEI degree requires 33 credits to graduate.

**Computer Science/Courant Part of the Program**

**Courant Core Courses:** Students must complete the four following courses:

- CSCI-GA 2630 Found of Networks & Mobile Semester _______ Grade ____ Credits ____
- CSCI-GA 2810 Design and Innovation Semester _______ Grade ____ Credits ____
- CSCI-GA 2820 DevOps and Agile Method Semester _______ Grade ____ Credits ____
- CSCI-GA 2830 Lean Launch Pad Semester _______ Grade ____ Credits ____

**CS Requirement A: Mathematical Techniques and Statistics Elective**
Course: ___________________________ Semester _______ Grade ____ Credits ____

**CS Requirement B: Systems Engineering Elective**
Course: ___________________________ Semester _______ Grade ____ Credits ____

**CS Requirement C: Applications Elective**
Course: ___________________________ Semester _______ Grade ____ Credits ____
Course: ___________________________ Semester _______ Grade ____ Credits ____

**Leonard N. Stern School of Business (Stern) Part of the Program:** Students must complete the following four courses (6 credits total)

**Stern Requirement A:**
COR1-GB 1102 Leadership Semester _______ Grade ____ Credits ____

**Stern Requirement B:**
COR1-GB 2101 Strategy Semester _______ Grade ____ Credits ____

**Stern Requirement C:**
MGMT-GB 2129 Founding a Startup Semester _______ Grade ____ Credits ____

**Stern Requirement D:**
COR1-GB 2105 Communication Semester _______ Grade ____ Credits ____

**Capstone Requirement:** Students must complete CSCI-GA 2840 Entrepreneurship Capstone
CSCI-GA 2840 Entrepreneurship Capstone Semester _______ Grade ____ Credits ____
## Computer Science Electives

### Mathematical Techniques and Statistics
- CSCI-GA 1180 Mathematical Techniques for CS Applications
- CSCI-GA 2112 Scientific Computing
- CSCI-GA 2271 Computer Vision
- CSCI-GA 2565 Machine Learning
- CSCI-GA 2566 Foundations of Machine Learning
- CSCI-GA 2572 Deep Learning
- CSCI-GA 3033 Advanced Machine Learning
- CSCI-GA 3033 Bayesian Machine Learning
- CSCI-GA 3033 Big Data and ML Systems
- CSCI-GA 3033 Deep Generative Models
- CSCI-GA 3033 Mathematics of Deep Learning
- CSCI-GA 3033 Statistical NLP
- CSCI-GA 3033 Vision Meets Machine Learning
- CSCI-GA 3210 Introduction to Cryptography
- CSCI-GA 3520 Honors Analysis of Algorithms *permission required

### Systems Engineering
- CSCI-GA.2110 Programming Languages *permission required
- CSCI-GA 2130 Compiler Construction
- CSCI-GA 2434 Advanced Database Systems
- CSCI-GA 2436 Realtime and Big Data Analytics
- CSCI-GA 2620 Networks and Mobile Systems
- CSCI-GA 2621 Distributed Systems
- CSCI-GA 2630 Foundations of Networks and Mobile Systems
- CSCI-GA 3033 Abstract Interpretation
- CSCI-GA 3033 Big Data and ML Systems
- CSCI-GA 3033 Cryptocurrencies and Decentralized Ledgers
- CSCI-GA 3110 Honors Programming Languages *permission required

### Applications
- CSCI-GA 2270 Computer Graphics
- CSCI-GA 2271 Computer Vision
- CSCI-GA 2274 Advanced Computer Graphics
- CSCI-GA 2433 Database Systems
- CSCI-GA 2436 Realtime and Big Data Analytics
- CSCI-GA 2437 Big Data Application Development
- CSCI-GA 2560 Artificial Intelligence
- CSCI-GA 2565 Machine Learning
- CSCI-GA 2566 Foundations of Machine Learning
- CSCI-GA 2590 Natural Language Processing
- CSCI-GA 2965 Heuristic Problem Solving
- CSCI-GA 3033 Bayesian Machine Learning
- CSCI-GA 3033 Big Data Science
- CSCI-GA 3033 Big Data and ML Systems
- CSCI-GA 3033 Blockchain and Its Applications
- CSCI-GA 3033 Cloud and Machine Learning
- CSCI-GA 3033 Cryptocurrencies and Decentralized Ledgers
- CSCI-GA 3033 Data Science for Health
- CSCI-GA 3033 Geometric Modeling
- CSCI-GA 3033 GPUs: Architecture and Programming
- CSCI-GA 3033 High Performance Machine Learning
- CSCI-GA 3033 Machine Learning for Healthcare
- CSCI-GA 3033 Multicore Programming
- CSCI-GA 3033 Predictive Analytics
- CSCI-GA 3033 Search Engine Architecture
- CSCI-GA 3033 Social Networks
- CSCI-GA 3033 Statistical NLP
- CSCI-GA 3033 Vision Meets Machine Learning