MSCEI DEGREE REQUIREMENTS FORM

First Name: ___________ Last Name: ___________ N number#: ___________

The MSCEI degree requires 33 credits to graduate. The breakdown is as follows:

**Computer Science/Courant Part of the Program:** Students must take nine (27 credits total) courses in the Computer Science department; Within these 27 credits, students must complete four core courses (12 credits total), one (3 credits total) Mathematical Techniques and Statistics Elective, one (3 credits total) Systems Engineering Elective, and two (6 credits total) Applications Electives.

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

- CSCI-GA 2630 Founds of Networks and Mobile Systems Semester _____ Grade ___ Credits 3
- CSCI-GA 2810 Design and Innovation Semester _____ Grade ___ Credits 3
- CSCI-GA 2820 DevOps and Agile Methodologies Semester _____ Grade ___ Credits 3
- CSCI-GA 2830 Lean LaunchPad Semester _____ Grade ___ Credits 3

**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 in Organizations Semester _____ Grade ___ Credits 1.5

**Stern Requirement B:**

COR1-GB 2101 Strategy Semester _____ Grade ___ Credits 1.5

**Stern Requirement C:**

MGMT-GB 3135 Entrepreneurship Semester _____ Grade ___ Credits 1.5

**Stern Requirement D:**

COR1-GB 2105 Communication Semester _____ Grade ___ Credits 1.5

**Capstone Requirement:** Students must complete CSCI-GA 2840 Entrepreneurship Capstone

Course: Entrepreneurship Capstone _____ Semester _____ Grade ___ Credits 3
Computer Science Electives

Mathematical Techniques and Statistics
CSCI-GA 1180 Mathematical Techniques for Cs Applications
CSCI-GA 2566 Foundations of Machine Learning
CSCI-GA 2567 Machine Learning
CSCI-GA 2572 Deep Learning
CSCI-GA 3003 Advanced Machine Learning
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 3520 Honors Analysis of Algorithms *permission required

Systems Engineering
CSCI-GA 2434 Advanced Database Systems
CSCI-GA 2620 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 3033 Distributed Systems
CSCI-GA 3033 Realtime and Big Data Analytics
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 2560 Artificial Intelligence
CSCI-GA 2590 Natural Language Processing
CSCI-GA 2965 Heuristic Problem Solving
CSCI-GA 3033 Big Data Science
CSCI-GA 3033 Big Data and ML Systems
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 Machine Learning for Healthcare
CSCI-GA 3033 Multicore Programing
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