

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