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 following four courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester</th>
<th>Grade</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSCI-GA 2630 Found of Networks &amp; Mobile</td>
<td>_______</td>
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<tr>
<td>CSCI-GA 2810 Design and Innovation</td>
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<td>CSCI-GA 2820 DevOps and Agile Method</td>
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<td>CSCI-GA 2830 Lean Launch Pad</td>
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**CS Requirement A: Mathematical Techniques and Statistics Elective**

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**CS Requirement B: Systems Engineering Elective**

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<th>Course</th>
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**CS Requirement C: Applications Elective**

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

**Stern Requirement A:**

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<th>Course</th>
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**Stern Requirement B:**

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**Stern Requirement C:**

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**Stern Requirement D:**

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

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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 3003 Advanced 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 Realtime and Big Data Analytics
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 2130 Compiler Construction
CSCI-GA 2434 Advanced Database Systems
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 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 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 Big Data Application Development
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 Realtime and Big Data Analytics
CSCI-GA 3033 Search Engine Architecture
CSCI-GA 3033 Social Networks
CSCI-GA 3033 Statistical NLP
CSCI-GA 3033 Vision Meets Machine Learning