COMPUTING, ENTREPRENEURSHIP AND INNOVATION (MS)

Department Website (https://cs.nyu.edu/ms-cei/)

NYSED: 39094 **HEGIS:** 0799.00 **CIP:** 11.0101

Program Description

The MS-CEI program is a Master's degree in Computing, Entrepreneurship and Innovation, combining computer science courses from the Courant Institute (Graduate School of Arts and Science) and business courses from the Stern School of Business.

Located in the heart of one of the world's most inspiring and influential cities, NYU's MS-CEI is a great environment to turn ideas into business realities. Designed to train future generations of technology entrepreneurs in the fundamentals of computer science and entrepreneurship, this one and a half year immersive program aims to help meet the changing technological challenges of today and motivate students to reshape their thinking for tomorrow.

Specifically, the MS-CEI is designed for computer science students and technology professionals interested in pursuing entrepreneurship or assuming leadership roles in innovative technology based organizations. By providing strong fundamentals in rigorous computer science applications, systems engineering and entrepreneurship the MS-CEI program will train students to become the next CTOs and CEOs of high-tech startups. Throughout the program students will go through various stages of technological entrepreneurship including problem conceptualization, idea incubation, product development, pilot deployment and effectiveness evaluation towards nurturing them to pursue their concepts into realities.

MS-CEI students will take business courses alongside MBA students, as well as draw the same courses as Courant Computer Science graduate programs (MS-CS & MS-DS), providing a unique opportunity of combining outstanding technical preparation with business sense. Students will develop their startup ideas through the program's core courses, specifically designed for it: from the ideation phase in Design & Innovation, to persevering or pivoting in Lean Launchpad, to building it in the Entrepreneurship Capstone. Beyond the program itself, NYU gives students the possibility of leveraging some of the top resources for entrepreneurs in the world such as the Leslie eLab , or Stern's 300k challenge.

This program is a great fit for students who wish to become software engineers (with well rounded skills), product designers, product managers, program managers and technical leads in organizations. While the program inculcates the key attributes of entrepreneurship, not every student in the program may launch a startup from the program. In fact, many students in the program have developed a combination of strong technical skills combined with strong design and entrepreneurship thinking which make them pursue a broad spectrum of jobs in the industry across both well established companies and startups.

Admissions

All applicants to the Graduate School of Arts and Science (GSAS) are required to submit the general application requirements (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc.html), which include:

- Academic Transcripts (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/academic-transcripts.html)
- Test Scores (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/test-scores.html) (if required)
- Applicant Statements (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/statements.html)
- Résumé or Curriculum Vitae
- Letters of Recommendation (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/letters-of-recommendation.html), and
- A non-refundable application fee (https://gsas.nyu.edu/admissions/arc.html#fee).

See Computer Science (https://gsas.nyu.edu/admissions/arc/programs/computer-science.html) for admission requirements and instructions specific to this program

Program Requirements

Course	Title	Credits
Major Requirements		
CSCI-GA 2810	Design and Innovation	3
MGMT-GB 2129	Entrepreneurship ((at the Stern School of Business))	1.5
COR1-GB 1102	Leadership (at the Stern School of Business)	1.5
COR1-GB 2101	Strategy ((at the Stern School of Business))	1.5
COR1-GB 2105	Communication ((at the Stern School of Business))	1.5
CSCI-GA 2630	Foundations of Networks and Mobile Systems	3
CSCI-GA 2820	DevOps and Agile Methodologies	3
CSCI-GA 2830	Lean Launch Pad	3
CSCI-GA 2840	Entrepreneurship Capstone (complete in final semester)	3
Electives		
Complete a 3-credit approved elective in Mathematical Techniques and Statistics		3
Complete a 3-credit approved elective in Systems Engineering		3
Complete two 3-credit approved electives in Applications		6
Total Credits		**33**

Sample Plan of Study

Course	Title	Credits
1st Semester/Term		
MGMT-GB 2129	Entrepreneurship	1.5
CSCI-GA 2630	Foundations of Networks and Mobile Systems	3
COR1-GB 2101	Strategy	1.5
CSCI-GA 2810	Design and Innovation	3
Select one of the following:		3
CSCI-GA 1180	Mathematical Techniques for Cs Applications	
Other Elective Credits		
	Credits	**12**
2nd Semester/Term		
COR1-GB 2105	Communication	1.5
COR1-GB 1102	Leadership	1.5
CSCI-GA 2820	DevOps and Agile Methodologies	3

CSCI-GA 2830	Lean Launch Pad	3
Other Elective Credits		3
	Credits	**12**
3rd Semester/Term		
CSCI-GA 2840	Entrepreneurship Capstone	3
Other Elective Credits		3
Other Elective Credits		3
	Credits	**9**
	Total Credits	**33**

Learning Outcomes

Upon successful completion of the program, graduates will have achieved the following learning outcomes:

1. **Technological Entrepreneurship**: Throughout the program students will go through various stages of technological entrepreneurship including problem conceptualization, idea incubation, product development, pilot deployment and effectiveness evaluation towards nurturing them to pursue their concepts into realities.
2. **Systems Skills**: The goal of the systems requirement is for every MSCEI student to have individual hands-on experience implementing, debugging, and testing actual compute heavy technical projects to enable them to product prototypes of their ideas. We aim for MSCEI students to learn core systems skills pertaining to the fundamentals of at least a subset of networking, cloud computing, mobile systems, operating systems and databases.
3. **Algorithmic and Statistical Skills**: We expect MSCEI students to take at least one algorithms or statistics centric course to hone their mathematical and statistical rigor.
4. **Applications**: An “application” is a specific area designated by the department as central to computer science, and the goal is that every student knows the state of the art in at least one such area. Generally, many students take classes that pertain to their area of interest that they wish their technical ideas to specialize in.

Policies

NYU Policies

University-wide policies can be found on the New York University Policy pages (https://bulletins.nyu.edu/nyu/policies/).

Graduate School of Arts and Science Policies

Academic Policies for the Graduate School of Arts and Science can be found on the Academic Policies page (https://bulletins.nyu.edu/graduate/arts-science/academic-policies/).