

DATA SCIENCE AND DECISION ANALYTICS (MENG)

College of Engineering

Program Website (<https://tech.cornell.edu/programs/masters-programs/data-science-decision-analytics/>)

CIP: 14.3701 | HEGIS: 0913.00 | NYSED: 43785

Program Description

With the degree awarded by the College of Engineering, this one-year program will provide you the tools to understand the data-to-algorithms-to-decisions pipeline by drawing from tools in machine learning, optimization and statistics.

Cornell Tech Program Policies

- Cornell Tech campus policy indicates that students enrolled in full-time masters programs are required to maintain a minimum of 12 credits of enrollment each semester. Students are advised to enroll in an average of 15 credits each semester, unless your program requirements notes otherwise, to ensure progression towards degree completion.
- Students may not enroll in more than 18 credits per semester without Program Director approval, which will be granted only in exceptional circumstances.
- Students may only count a maximum of 2 credit hours graded as S/U towards the degree requirements. Classes that are only offered as S/U count towards this 2-credit limit. If students change a course that is more than 2 credits to "S/U", then that entire course will not count as it is over the 2-credit limit.
- All students must receive a B or higher in TECH 5900 or TECH 5910/ TECH 5920/ TECH 5930.
- Only classes with a grade of C- or higher will count towards a student's degree requirements.
- Students must maintain at least a 2.5 GPA. Students who are not in good standing may be asked to leave the program.
- Please note Curricular Practical Training credits (TECH 5999) does not count towards graduation/degree requirements.

Program Information

- Instruction Mode: In Person
- Location: Ithaca, NY and New York City, NY
- Minimum Credits for Degree: 30; Full-time study

Program Requirements

Data Science Courses

Students must take a total of three courses from the list below with at least one course from each of the categories (eg six credits from category 1 and three credits from category 2).

Code	Title	Hours
Category 1 – ML/Data Science		
CS 5304	Data Science in the Wild	3
ORIE 5355	Applied Data Science: Decision-Making Beyond Prediction	3
CS 5785	Applied Machine Learning	3
CS 5781	Machine Learning Engineering	3
CS 5787	Deep Learning	3
ORIE 5381		

Code	Title	Hours
Category 2 – Modeling and Decision-Making		
ECE 5242	Intelligent Autonomous Systems	3
ORIE 5751	Applied Causal Inference using Machine Learning	3
ECE 5260	Graph-Based Data Science for Networked Systems	3
ORIE 5380	Optimization Methods	3
ORIE 5530	Modeling Under Uncertainty	3

Technical Courses Required to Complete: 9 credits

- Students must take at least 9 technical credits from any ECE, CS, ORIE, or INFO course offerings at Cornell Tech that are advanced and technical (5000 or above). Most technical courses are three credits each.
- Please note: any data science core classes not taken to fulfill the core requirement can be taken to fulfill the technical course requirements. You should discuss your choices of technical courses with the program director.

Studio Courses Required to Complete: 8 credits

All Studio Courses must be taken for a letter grade.

Code	Title	Hours
TECH 5900	Product Studio	4
TECH 5910	Startup Studio	3
or TECH 5920	BigCo Studio	
or TECH 5930	PiTech Impact Studio	
1 credit of a TECH Studio Elective. ¹		

¹ Please note: TECHIE prefixes do not qualify as Studio electives.

General Electives Required to Complete: 4 credits

- Select from any offerings on Cornell Tech's campus (CS, ECE, ORIE, INFO, LAW, NBAY, TECH, TECHIE). Please note: TECHIE 5310 Business Fundamentals must be taken as a prerequisite for all business courses.

University Graduation Requirements Requirements for All Students

In order to receive a Cornell degree, a student must satisfy academic and non-academic requirements.

Academic Requirements

A student's college determines degree requirements such as residency, number of credits, distribution of credits, and grade averages. It is

the student's responsibility to be aware of the specific major, degree, distribution, college, and graduation requirements for completing their chosen program of study. See the individual requirements listed by each college or school or contact the college registrar's office (<https://registrar.cornell.edu/service-resources/college-registrar-directory/>) for more information.

Non-academic Requirements

Conduct Matters. Students must satisfy any outstanding sanctions, penalties or remedies imposed or agreed to under the Student Code of Conduct (Code) or Policy 6.4. Where a formal complaint under the Code or Policy 6.4 is pending, the University will withhold awarding a degree otherwise earned until the adjudication process set forth in those procedures is complete, including the satisfaction of any sanctions, penalties or remedies imposed.

Financial Obligations. Outstanding financial obligations will not impact the awarding of a degree otherwise earned or a student's ability to access their official transcript. However, the University may withhold issuing a diploma until any outstanding financial obligations owing to the University are satisfied.