**PREREQUISITES**
- Calculus 1

**MATH REQUIREMENT**
- Calculus 3/ Multivariable Calculus
  - MATH UN1201, MATH UN1205, or APMA E2000
- Linear Algebra
  - COMS W3251, APMA E3101, APMA E2101, MATH UN2010, or MATH UN2015
- Probability (new)
  - STAT UN1201, STAT GU4001, IEOR E3658, or MATH UN2015
  - MATH UN2015 can double count for Linear Algebra and Probability requirements. This is the ONLY instance a course can double-count

**CS CORE**
- The following 6 courses must be taken:
  - COMS W1004 Intro to CS
  - COMS W3134 Data Structures
  - COMS W3157 Advanced Programming
  - COMS W3203 Discrete Math
  - COMS W3261 CS Theory
  - CSEE W3827 Fundamentals of Computer Systems

**AREA FOUNDATION COURSES (AFC)**
- Select 3 courses from the following list:
  - COMS W4111 Introduction to Databases
  - COMS W4113 Distributed Systems Fundamentals
  - COMS W4115 Programming Languages and Translators
  - COMS W4118 Operating Systems
  - CSEE W4119 Computer Networks
  - COMS W4152 Engineering Software-as-a-Service
  - COMS W4156 Software Engineering
  - COMS W4160 Computer Graphics
  - COMS W4167 Computer Animation
  - COMS W4170 User Interface Design
  - COMS W4181 Security I
  - CSOR W4231 Analysis of Algorithms
  - COMS W4236 Introduction to Computational Complexity
  - COMS W4701 Artificial Intelligence
  - COMS W4705 Natural Language Processing
  - COMS W4731 Computer Vision
  - COMS W4733 Computational Aspects of Robotics
  - CBMF W4761 Computational Genomics
  - COMS W4771 Machine Learning
  - CSEE W4824 Computer Architecture
  - CSEE W4868 System-on-Chip Platforms

**CS ELECTIVES**
- 3 COMS courses or jointly listed CS courses such as CSXX/XXCS that are at the 3000- level or higher, and are at least 3-points

**QUESTIONS?**
Email CS Advising: ug-advising@cs.columbia.edu