# Sequence of Courses for CS Majors Leading to a B.S. in Computer and Information Science from Fordham and a B.S. Degree in Engineering from either Columbia University or Case Western Reserve University

## Freshman

### Fall

**Calculus 2: MATH 1207**
**Computer Science I: CISC 1600**
**Computer Science I Lab: CISC 1610**
Social Science: ECON 1100 or 1200
Composition and Rhetoric: ENGL1102
Philosophy of Human Nature: PHYS1000

### Spring

**Discrete Mathematics: MATH 2001**
**Computer Science II: CISC 2000**
**Computer Science II Lab: CISC 2010**
Faith and Critical Reason
Understanding Historical Change
Fine Arts

## Sophomore

### Fall

**Multivariable Calculus I: MATH 2004**
**CISC 2200 Data Structures**
**Physics I: PHYS 1701**
**Physics I Lab: PHYS 1511**
Philosophical Ethics
Texts and Contexts (EP2)

### Spring

**Multivariable Calculus II: MATH 2005**
**CISC 3500 Database**
**CISC 3593 Computer Org**
**Physics II: PHYS 1702**
**Physics II Lab: PHYS 1512**
Sacred Texts and Traditions

## Junior

### Fall

**Linear Algebra I: MATH 2006**
**CISC 4080 Computer Alg**
**CISC 4631 Data Mining**
**General Chemistry I Recitation: CHEM1311**
**General Chemistry I: CHEM 1321**
**General Chemistry Lab I: CHEM 1331**
Advanced Disciplinary Course

### Spring

**Differential Equations: MATH 3002**
**CISC 3595 Operating Systems**
**CISC 4090 Theory of Computation**
**CISC 4615 Data Com**
Values Seminar (EP4)

The 3-2 schedule above completes the entire core in 3 years *except* the ICC requirement and the second advanced disciplinary course requirement. These must be waived by a dean or completed over the summer.

Students need to be sure to read carefully the requirements for their intended major at Columbia.

Note that depending on the intended major at Columbia, other CS courses may be required or useful, including

CISC 1800 Intro to Computer programming in Python

CISC 3400 Java programming

CISC 4750 Scientific computation using MATLAB

Students wishing to do Computer Engineering will need to take

PHYS 4010 Introduction to Electrical Engineering