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

## <u>Fall</u>

## <u>Freshman</u>

#### **Spring**

Calculus 1: MATH 1206 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 Calculus 2: MATH 1207 Computer Science II: CISC 2000 Computer Science II Lab: CISC 2010

Faith and Critical Reason Understanding Historical Change Fine Arts

# **Sophomore**

Data Structures: CISC 2200 Discrete Mathematics: MATH 2001 Physics I: PHYS 1701 Physics I Lab: PHYS 1511 Philosophical Ethics

Texts and Contexts (EP2)

Multivariable Calculus I: MATH 2004 Linear Algebra I: MATH 2006 Physics II: PHYS 1702 Physics II Lab: PHYS 1512 Sacred Texts and Traditions Advanced Disciplinary Course

### <u>Iunior</u>

Numerical Analysis: MATH 4006 Probability: MATH 3006 General Chemistry I Recitation: CHEM1311 General Chemistry I: CHEM 1321 General Chemistry Lab I: CHEM 1331 Advanced Disciplinary Course Computer Science Elective (above 2000) Differential Equations: MATH 3002 Computer Algorithms: CISC 4080 Theory of Computation: CISC 4090 Values Seminar (EP4) Multivariable Calculus II: MATH 2005

Students applying to Case Western should take CHEM 1322 and lab 1332.

Math-cis majors may NOT apply to Columbia in the field of Computer Science. (NYS law.)

Students applying to Applied Math/Physics or EE should also take PHYS 2005: Modern Physics. Students applying to Computer or Electrical Engineering should take PHYS 4010: Intro to Electrical Engineering.

(revised: May 18, 2018)