

## **QuickGuide for Computer Science - Mathematics**

The goal of this interdepartmental major is to provide substantial background in each of these two disciplines, focusing on some of the parts of each which are closest to the other. Students intending to pursue a PhD program in either discipline are urged to take additional courses, in consultation with their advisors.

The program requires a total of at least 44-47 points: 19-20 points in Computer Science, 19-21 points in Mathematics, and two 3-point electives in either CS or Maths.

### **Computer Science:**

COMS W1004 Intro to CS & Programming in Java or COMS 1007 Honors Intro to CS  
COMS W3134 Data Structures in Java or COMS 3137 Data Structures and Algorithms  
COMS W3157 Advanced Programming  
COMS W3203 Discrete Maths  
COMS W3261 Computer Science Theory  
CSEE W3827 Fundamentals of Computer Systems

### **Mathematics:**

One of the following three Calculus and Linear Algebra sequences:

- 1) MATH UN1101, UN1102, UN1201, UN1202, UN2010
- 2) MATH UN1101, UN1102, UN1205, UN2010
- 3) MATH UN1101, UN1102, UN1207, UN1208

Each of the following:

MATH UN3951 or MATH UN3952  
MATH GU4041

### **Electives:**

Two of the following:

CSOR W4231 Analysis of Algorithms  
COMS W4241 Numerical Algorithms and Complexity  
MATH UN3020  
MATH BC2006  
MATH GU4061  
MATH UN2500  
MATH UN3007  
MATH UN3386  
MATH GU4051