

# COMPUTER SCIENCE AND MATHEMATICS

**Directors of undergraduate studies:** James Aspnes (Computer Science), 401 AKW, 432-1232, james.aspnes@yale.edu; Andrew Casson (Mathematics), 216 LOM, 432-7056, andrew.casson@yale.edu

Computer Science and Mathematics is an interdepartmental major for students who are interested in computational mathematics, the use of computers in mathematics, mathematical aspects of algorithm design and analysis, and theoretical foundations of computing.

## REQUIREMENTS OF THE MAJOR

The major requires fourteen term courses as well as a senior project. Six of the fourteen courses must be in computer science: CPSC 201, 223, 323, and 365 or 366; one from CPSC 440, 462, 465, 468, or 469; and one additional advanced term course other than CPSC 480 or 490. The remaining eight courses must be in mathematics: MATH 120, either 222 or 225, 244, and five additional term courses numbered above MATH 200 other than MATH 470. MATH 230 and 231 may replace (but do not count in addition to) MATH 120 and 222 or 225.

**Credit/D/Fail** Courses taken Credit/D/Fail may not be counted toward the major.

## SENIOR REQUIREMENT

The senior requirement is a project or an essay on a topic acceptable to both departments. An oral report on the mathematical aspects of the project must be presented to the Mathematics faculty.

## ADVISING

The entire program of each student majoring in Computer Science and Mathematics must be approved by the director of undergraduate studies in each department.

## REQUIREMENTS OF THE MAJOR

**Prerequisites** None

**Number of courses** 14 term courses (not incl senior req)

**Specific courses required** CPSC 201, 223, 323, 365 or 366; one from CPSC 440, 462, 465, 468, or 469; MATH 120, 222 or 225, 244

**Distribution of courses** 5 addtl courses in math numbered above 200 (may not be MATH 470); 1 addtl advanced course in comp sci (may not be CPSC 480 or 490)

**Substitution permitted** MATH 230, 231 for MATH 120 and 222 or 225

**Senior requirement** Senior project or senior essay on topic acceptable to Comp Sci and Math depts; oral report to Math dept on mathematical aspects of project