

## B.S. Dual Major for Computer Science and Mathematics (281BS)

### For Students Entering in Fall 2007 or Spring 2008

Revision of June 18, 2008

*This degree program requires 133 SH of credit*

The College of Computer and Information Science and the Department of Mathematics reserve the right to modify the curriculum described in this document or the individual courses as necessary in the future.

<b>Computer Science</b>
<b>48 or 49 SH: 11 @ 4 SH, 4 or 5 @ 1 SH</b>
<i>Computer Science Required Courses (40 or 41 SH)</i>
CS U200 Discrete Structures & CS U201 [0 SH]
CS U211 Fund of Computer Science 1 & CS U212 [1 SH]
CS U213 Fund of Computer Science 2 & CS U214 [1 SH]
CS U221 CS/IS Overview 1 [1 SH]
CS U222 CS/IS Overview 2 [1 SH]
or
CS U223 CS/IS Co-op Preparation [1 SH]
CS U290 Logic and Computation
CS U370 Object-Oriented Design
CS U390 Theory of Computation
CS U540 Computer Graphics
CS U670 Software Development
CS U690 Algorithms & Data
CS U600 Senior Seminar [1 SH]
<i>Computer Science Electives (8 SH)</i>
CS Elective 1
CS Elective 2
<i>CS elective: CS U380 or higher, or IS U535 or IS U570</i>
<b>English (8 SH: 2 @ 4 SH)</b>
ENG U111 College Writing
ENG U302 Adv Writing in the Technical Professions
<i>With permission, may substitute ENG U301 for ENG U302</i>
<b>General Requirements (4 SH: 1 @ 4 SH)</b>
SOC U528 Computers and Society
<b>General Electives (28 SH: 7 @ 4 SH)</b>
Elective 1: Arts/Humanities Core
Elective 2: Social Sciences Core
Elective 3
Elective 4
Elective 5
Elective 6
Elective 7
<i>The general electives must be consistent with the policy on general electives articulated by the College of Computer and Information Science on the college web site.</i>
<i>2 of the general electives must be used to satisfy:</i>
<i>Level 1 Arts/Humanities Core</i>
<i>Level 1 Social Sciences Core</i>
<i>The Comparative Cultures Requirement must be satisfied. If this is done by taking a course then this must also be one of the general electives.</i>

<b>Mathematics (45 SH: 11 @ 4 SH, 1 @ 1 SH)</b>
<i>Mathematics Required Courses (33 SH)</i>
MTH U241 Calculus 1
MTH U242 Calculus 2
MTH U341 Calculus 3
MTH U345 Ordinary Differential Equations
MTH U371 Linear Algebra
MTH U430 Number Theory
MTH U481 Probability & Statistics
MTH U575 Group Theory
MTH U300 Co-op Reflection Seminar 1 [1 SH]
<i>To be taken after the first co-op is completed.</i>
<i>Mathematics Electives (12 SH)</i>
MTH Elective 1
MTH Elective 2
MTH Elective 3
<i>Math Elective: MTH U401 or higher</i>
<b>Integrative Courses</b>
<i>See CS U200 Discrete Structures</i>
<i>See CS U290 Logic and Computation</i>
<i>See CS U540 Computer Graphics</i>