# Preliminary Degree Check

**MAJOR in MATHEMATICS-COMPUTER SCIENCE (MA30)**

**Name:** ___________________________  **PID:** ___________________________

**Admit quarter:** ___________________________  **Graduating Quarter:** ___________________________

**Lower-Division Requirements**

<table>
<thead>
<tr>
<th>Mathematics (24 units total):</th>
<th>Computer Science:</th>
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<tbody>
<tr>
<td>2. Math 20B Calc for Sci &amp; Eng</td>
<td>OR</td>
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<tr>
<td>4. Math 20D Intro to Diff. Eqns</td>
<td>2. CSE 12 Data Struct. &amp; Object-oriented Prog</td>
</tr>
<tr>
<td>6. Math 20F/31AH Linear Algebra</td>
<td><strong>Note:</strong> Some CSE courses may have prerequisites not listed here.</td>
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</table>

The Mathematics Department requires that students complete the required lower division mathematics courses with a minimum GPA of 2.5 before acceptance into the major will be granted. **Note:** Some CSE courses may have prerequisites not listed here.

**Upper-Division Requirements (14 courses)**

<table>
<thead>
<tr>
<th>Mathematics Department Evaluation</th>
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<tbody>
<tr>
<td><strong>Comments:</strong> ___________________________</td>
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</tbody>
</table>

- 1. Math 109  
  Math 103A-B Modern Algebra (or Math 100A-B) (Complete by end of junior year)
- 2. Math 166 Theory of Computability (or CSE 105)
- 3. Math 176 Advanced Data Structures (or CSE 100)
- 4. Math 180A Intro to Probability OR Math 183 Stat Methods
- 5. Math 184A Combinatorics
- 6. Math 188 Design & Analysis of Algorithms (or CSE 101)
- 7. Any eight units from List A:
  - Math 170A Intro to Num Analysis: Linear Algebra
  - Math 170B Intro to Num Analysis: Approx & Nonlinear Eqns
  - Math 170C Intro to Num Analysis: Ordinary Diff Eqns
  - Math 175 Numerical Methods in Partial Diff Eqns
  - Math 179 Projects in Comp & App Math
  - Math 174 Numerical Methods (Duplication of credit with Math 170ABC)
- 8. Any additional 8 units from List A or B or from the following mathematics upper-division courses:

**Course Selections**

1. Math ____ 109 (4 units) ....................
2. Math ____ (4 units) ....................
3. Math/CSE ____ (4 units) ....................
4. Math/CSE ____ (4 units) ....................
5. Math ____ (4 units) ....................
6. Math ____ 184A (4 units) ....................
7. Math/CSE ____ (4 units) ....................
8. Math ____ (4 units) ....................
9. ____ (4 units) ....................
10. ____ (4 units) ....................
11. ____ (4 units) ....................

**Advisor:** ___________________________

**Date:** ___________________________

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**16. 2010-2011**