

# Department of Mathematics, University of California, San Diego

## PRELIMINARY DEGREE CHECK

### MAJOR in MATHEMATICS-SECONDARY EDUCATION

Name: \_\_\_\_\_ PID#: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Quarter Entered UCSD: \_\_\_\_\_ Graduating Quarter: \_\_\_\_\_ Major GPA: \_\_\_\_\_

#### Lower-Division Requirements

**Mathematics (24 units total):**

- |                                      |                          |
|--------------------------------------|--------------------------|
| 1) Math 20A Calc for Science & Eng   | <input type="checkbox"/> |
| 2) Math 20B Calc for Science & Eng   | <input type="checkbox"/> |
| 3) Math 20C Calc & Analytical Geom.  | <input type="checkbox"/> |
| 4) Math 20D Intro to Diff. Equations | <input type="checkbox"/> |
| 5) Math 20E Vector Calculus          | <input type="checkbox"/> |
| 6) Math 20F Linear Algebra           | <input type="checkbox"/> |

**One of the following is recommended:**

- |                              |                          |
|------------------------------|--------------------------|
| CSE 8A-B Java Programming    | <input type="checkbox"/> |
| MAE 10 FORTRAN for Engineers | <input type="checkbox"/> |
| MAE 9 C/C++ Programming      | <input type="checkbox"/> |

#### Upper-Division Requirements

**Requirements:**

Upper-division courses must total 13 chosen from the below items:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>* Math 109 Mathematical Reasoning</li> <li>* Math 104A Number Theory</li> <li>* Math 163 History of Mathematics</li> <li>* TEP 129A-B-C Pre-Internship Practicum in Learning</li> <li>* One of the following:                     <ul style="list-style-type: none"> <li>Math 107A Computer Algebra</li> <li>Math 155A Computer Graphics</li> <li>Math 161 Mathematical Computing</li> <li>Math 170A Numerical Linear Algebra</li> <li>Math 187 Introduction to Cryptography</li> </ul> </li> <li>* One of the following:                     <ul style="list-style-type: none"> <li>Math 180A Introduction to Probability</li> <li>Math 183 Statistical Methods<br/>(Duplication of credit w/ Math 180A)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>* One of the following:                     <ul style="list-style-type: none"> <li>Math 150A Differential Geometry</li> <li>Math 190 Introduction to Topology</li> <li>Math 153 Geometry for Secondary Teachers</li> </ul> </li> <li>* One of the following:                     <ul style="list-style-type: none"> <li>Math 100A Modern Algebra</li> <li>Math 102 Applied Linear Algebra</li> <li>Math 103A Modern Applied Algebra</li> </ul> </li> <li>* One of the following:                     <ul style="list-style-type: none"> <li>Math 140A Foundations of Analysis</li> <li>Math 142A Advanced Calculus</li> </ul> </li> <li>* One two-quarter sequence from the following list:                     <ul style="list-style-type: none"> <li>100A-B, 103A-B, 103A-102, 104A-B, 110-120A, 110-130A-B, 110-132A, 110-131, 120A-B, 130A-132A, 130A-B, 132A-B, 140A-B, 142A-B, 150A-B, 155A-B, 160A-B, 170A-B, 170A-172, 170A-173, 170A-171A, 171A-B, 180A-B, 180A-181A, 193A-B</li> </ul> </li> </ul> |
|---|---|

**Course Selections:**

- |   |                             |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|---|-----------------------------|--------------------------|------------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-------------------------|--------------------------|--|-------------------------|--------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1) Math _____ 109 (4 units)</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>2) Math _____ 104A (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>3) Math _____ 163 (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>4) TEP _____ 129A (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>5) TEP _____ 129B (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>6) TEP _____ 129C (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>7) Math _____ (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> | 1) Math _____ 109 (4 units) | <input type="checkbox"/> | 2) Math _____ 104A (4 units) | <input type="checkbox"/> | 3) Math _____ 163 (4 units) | <input type="checkbox"/> | 4) TEP _____ 129A (4 units) | <input type="checkbox"/> | 5) TEP _____ 129B (4 units) | <input type="checkbox"/> | 6) TEP _____ 129C (4 units) | <input type="checkbox"/> | 7) Math _____ (4 units) | <input type="checkbox"/> | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">8) Math _____ (4 units)</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>9) Math _____ (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>10) Math _____ (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>11) Math _____ (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>12) Math _____ (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>13) Math _____ (4 units)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> | 8) Math _____ (4 units) | <input type="checkbox"/> | 9) Math _____ (4 units) | <input type="checkbox"/> | 10) Math _____ (4 units) | <input type="checkbox"/> | 11) Math _____ (4 units) | <input type="checkbox"/> | 12) Math _____ (4 units) | <input type="checkbox"/> | 13) Math _____ (4 units) | <input type="checkbox"/> |
| 1) Math _____ 109 (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 2) Math _____ 104A (4 units)  | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 3) Math _____ 163 (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 4) TEP _____ 129A (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 5) TEP _____ 129B (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 6) TEP _____ 129C (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 7) Math _____ (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 8) Math _____ (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 9) Math _____ (4 units)   | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 10) Math _____ (4 units)  | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 11) Math _____ (4 units)  | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 12) Math _____ (4 units)  | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 13) Math _____ (4 units)  | <input type="checkbox"/>    |                          |                              |                          |                             |                          |                             |                          |                             |                          |                             |                          |                         |                          |  |                         |                          |                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |

#### Mathematics Department Evaluation:

Comments: \_\_\_\_\_

Advisor: \_\_\_\_\_ Date: \_\_\_\_\_