

### **CNSM Academic Advising Center**

College of Natural Sciences and Mathematics California State University Long Beach www.csulb.edu/cnsm/advising

# BACHELOR OF SCIENCE IN MATHEMATICS OPTION IN STATISTICS FOUR YEAR DEGREE WORKSHEET 2017-2018 Catalog

This degree worksheet is intended to help you develop a balanced course schedule while completing your degree within 4 years. The same sequence of courses (with fewer courses each semester) is also recommended for students completing their degree in 5 or 6 years. This worksheet is not intended to replace academic advising with your assigned advisor. Students should consult with their assigned advisor to determine the appropriate sequence of required courses and electives based on their academic goals.

CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification.

### Year 1

| Semester | Course #        | Course Title (Units)             | Prerequisites    | Notes     |
|----------|-----------------|----------------------------------|------------------|-----------|
| 1        | MATH 122        | Calculus I (4)                   | MATH 111 and 113 |           |
|          | GE (area A1)    | Written Communication (3)        |                  |           |
|          | GE (area C,D,E) | Other Explorations (3)           |                  |           |
|          | GE (area C,D,E) | Other Explorations (3)           |                  |           |
|          | NSCI 190A       | Experience Success Program 1 (1) |                  | Fall only |
| 2        | MATH 123        | Calculus II (4)                  | MATH 122         |           |
|          | GE (area A2)    | Oral Communication (3)           |                  |           |
|          | GE (area A3)    | Critical Thinking (3)            |                  |           |
|          | GE (area C,D,E) | Other Explorations (3)           |                  |           |
|          | Elective        | Elective Requirement (3)         |                  |           |

# Year 2

| Semester | Course #        | Course Title (Units)                          | Prerequisites | Notes                     |
|----------|-----------------|---|---------------|---------------------------|
| 3        | MATH 224        | Calculus III (4)                              | MATH 123      |                           |
|          | CECS 174        | Intro Programming and Problems<br>Solving (3) |               |                           |
|          | GE (area C,D,E) | Other Explorations (3)                        |               |                           |
|          | GE (area C,D,E) | Other Explorations (3)                        |               |                           |
|          | Elective        | Elective (3)                                  |               |                           |
| 4        | MATH 247        | Introduction to Linear Algebra (3)            | MATH 123      |                           |
|          | MATH 380        | Probability and Statistics (3)                | MATH 224      |                           |
|          | GE (area C,D,E) | Other Explorations (3)                        |               |                           |
|          | GE (area B1a)   | Life Science (3-4)                            |               | B1a or<br>B1b with<br>lab |
|          | Elective        | Elective (3)                                  |               |                           |

# Year 3

| Semester | Course #                           | Course Title (Units)                              | Prerequisites   | Notes                     |
|----------|------------------------------------|---|---|---------------------------|
| 5        | MATH 381                           | Mathematical Statistics (3)                       | MATH 247 and 380  |                           |
|          | Upper Division<br>Elective         | Math Statistics (3)                               |   |                           |
|          | ENGL 101;<br><i>OR</i><br>ENGL 317 | Composition (3);  OR  Technical Communication (3) | GE Written Communication (A1) and<br>GE Oral Communication (A2) and GE<br>Critical Thinking (A3) and MATH 122<br>(B2) | 101 not offered           |
|          | GE (area B1b)                      | Physical Science (3-4)                            |   | B1a or<br>B1b with<br>lab |
|          | Elective                           | Elective (3)                                      |   |                           |
| 6        | MATH 361A                          | Intro. to Mathematical Analysis I (3)             | MATH 224 and 233  |                           |
|          | MATH 323                           | Intro. to Numerical Analysis (3)                  | MATH 224  |                           |
|          | Upper Division<br>Elective         | Math Statistics (3)                               |   |                           |
|          | GE (area C,D,E)                    | Other Explorations (3)                            |   |                           |
|          | Elective                           | Elective (3)                                      |   |                           |

## Year 4

| Semester | Course #                   | Course Title (Units)                  | Prerequisites   | Notes       |
|----------|----------------------------|---------------------------------------|---|-------------|
| 7        | STAT 410                   | Regression Analysis (3)               | STAT 381  |             |
|          | STAT 475                   | Data Analysis with SAS (3)            | STAT 381  |             |
|          | Upper Division<br>Elective | Math Statistics (3)                   |   |             |
|          | GE Capstone<br>(area F)    | General Education & Foundation (3)    | GE Written Communication (A1) and<br>GE Oral Communication (A2) and GE<br>Critical Thinking (A3) and MATH 122<br>(B2) |             |
|          | Elective                   | Elective (3)                          |   |             |
| 8        | STAT 450                   | Multivariate Statistical Analysis (3) | STAT 381  | Spring only |
|          | Upper Division<br>Elective | Math Statistics (3)                   |   |             |
|          | GE Capstone<br>(area F)    | General Education & Foundation (3)    | GE Written Communication (A1) and<br>GE Oral Communication (A2) and GE<br>Critical Thinking (A3) and MATH 122<br>(B2) |             |
|          | GE Capstone<br>(area F)    | General Education & Foundation (3)    | GE Written Communication (A1) and<br>GE Oral Communication (A2) and GE<br>Critical Thinking (A3) and MATH 122<br>(B2) |             |
|          | Elective                   | Elective (2)                          |   |             |