



Bachelor of Science

Major: Mathematics Specialization: Data Science

2021-2022 Sample 4-Year Plan

Total Degree Requirements: 120 credits

Student _____ Student ID# _____ Student Phone # _____
Advisor _____ Minimum GPA 2.00 Minor/Career Interest(s) _____

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the Undergraduate Catalog.

First Year

Fall

Table with 6 columns: Prefix + Number, Course Title, Prerequisites/Comments, Credits, Semester, Grade. Rows include ENGL 101, INFO 101, MATH 123, MATH 198, and a block of science courses.

Spring

Table with 6 columns: Prefix + Number, Course Title, Prerequisites/Comments, Credits, Semester, Grade. Rows include CSC 150, ENGL 201 or ENGL 277, MATH 125, SGR #2, SGR #3, and a Total Credit Hours row.

Second Year

Fall

Table with 6 columns: Prefix + Number, Course Title, Prerequisites/Comments, Credits, Semester, Grade. Rows include MATH 225, MATH 230, MATH 250, STAT 382, STAT 415, and a Total Credit Hours row.

Spring

Table with 6 columns: Prefix + Number, Course Title, Prerequisites/Comments, Credits, Semester, Grade. Rows include MATH 253, SGR #4, STAT 482, SGR #3, SGR #4, and a Total Credit Hours row.

Information Subject to Change. This is not a contract.

p. = Course Prerequisite
Semester: F = Fall, S = Spring, SU = Summer



Third Year

Fall

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---------------------------|---|------------------------|-----------|----------|-------|
| Choose 1: | | | 3 | | |
| MATH 316 | Discrete Mathematics or | p. MATH 253 | | | |
| MATH 321 | Differential Equations | p. MATH 125 | | | |
| MATH 315 | Linear Algebra | p. MATH 253 | 3 | | |
| Choose 1: | | | 3 | | |
| MATH 475 | Operations Research I or | p. MATH 125 or 315 | | F | |
| STAT 442 | Exploratory Data and Cloud Based Data Analysis or | p. STAT 482 | | F | |
| STAT 460 | Time Series Analysis or | p. STAT 482 | | F | |
| CSC 250 | Computer Science 2 | p. CSC 150 | | | |
| General Electives | General Electives | | 6 | | |
| Total Credit Hours | | | 15 | | |

Spring

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---------------------------|------------------------------|-------------------------------------|-----------|----------|-------|
| MATH 425 | Real Analysis I | p. MATH 125 & MATH 315 | 3 | | |
| Choose 3: | | | 9 | | |
| MATH 316 | Discrete Mathematics or | p. MATH 253 | | | |
| STAT 383 | Geospatial Data Analysis or | p. STAT 281 or STAT 381 or STAT 382 | | S | |
| STAT 410 | SAS Programming or | | | S | |
| MATH 374 | Scientific Computation or | p. CSC 150 and MATH 125 | | S | |
| STAT 445 | Non-Parametric Statistics or | p. STAT 382 | | S | |
| STAT 451 | Predictive Analytics or | p. STAT 482 | | S | |
| CSC 300 | Data Structures | p. CSC 250 | | | |
| General Electives | General Electives | | 3 | | |
| Total Credit Hours | | | 15 | | |

Fourth Year

Fall

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---------------------------|---|------------------------|-----------|----------|-------|
| MATH 401 (s03) | Senior Capstone | | 2 | | |
| Choose 2: | | | 6 | | |
| MATH 316 | Discrete Mathematics or | p. MATH 253 | | | |
| MATH 415 | Advanced Linear Algebra or | p. MATH 315 | | | |
| MATH 475 | Operations Research I or | p. MATH 125 or 315 | | F | |
| STAT 442 | Exploratory Data and Cloud Based Data Analysis or | p. STAT 482 | | F | |
| STAT 460 | Time Series Analysis or | p. STAT 482 | | F | |
| CSC 250 | Computer Science 2 | p. CSC 150 | | | |
| General Electives | General Electives | | 7 | | |
| Total Credit Hours | | | 15 | | |

Spring

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|-----------------|------------------------------|-------------------------------------|---------|----------|-------|
| MATH 401 (s04) | Senior Capstone | | 2 | | |
| Choose 2: | | | 6 | | |
| MATH 316 | Discrete Mathematics or | p. MATH 253 | | | |
| STAT 383 | Geospatial Data Analysis or | p. STAT 281 or STAT 381 or STAT 382 | | S | |
| STAT 410 | SAS Programming or | | | S | |
| MATH 374 | Scientific Computation or | p. CSC 150 and MATH 125 | | S | |
| STAT 445 | Non-Parametric Statistics or | p. STAT 382 | | S | |

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p. = Course Prerequisite
Semester: F = Fall, S = Spring, SU = Summer



| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|-------------------|---|---------------------------|---------|----------|-------|
| STAT 451 | Predictive Analytics or | p. STAT 482 | | S | |
| CSC 300 | Data Structures (or CSC 325, 447, or 484) | p. CSC 250 | | | |
| General Electives | General Electives | | 6 | | |
| | | Total Credit Hours | 14 | | |

Comments/Notes

The Department of Mathematics and Statistics has additional plans of study in different focus areas including Applied Mathematics and Actuarial/Financial Mathematics. Please contact your advisor for additional information.

If progressing on to the MS in Data Science or Statistics, consider taking STAT 445, 451, 453, and 460 as STAT 545, 551, 553, and 560.

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the [Honors program requirements](#).