

Planning Guide: Mathematics & Data Science Certificate

Below are sample course plans that show how a student might navigate both the Mathematics major and Data Science certificate. This plan is provided as a tool for students to understand the potential course load between two programs and areas of overlap and non-overlap. Please note that this is a flexible plan and students are not required to follow this plan exactly. Students are strongly encouraged to review the full curriculum for both programs on the Guide and contact relevant advisors for information on course selection.

[Guide link to the Mathematics major](#) (select Mathematics BA or BS).

[Guide link to the Data Science certificate.](#)

4 YEAR PLAN

| | Fall Semester | | Spring Semester | |
|-----------------|--|------------------------|--|------------------------|
| | <i>Math Maj Courses</i> | <i>DS Cert Courses</i> | <i>Math Maj Courses</i> | <i>DS Cert Courses</i> |
| Year 1 | MATH 221 (5) | COMP SCI 220 (4) | MATH 222 (4) | |
| Shared/Gen-Ed's | Electives and gen-ed courses | | Electives and gen-ed courses | |
| Year 2 | MATH 234 (4) | STAT 240 (4) | MATH 341 (3), 300/400-level Math (3) | |
| Shared/Gen-Ed's | Electives and gen-ed courses | | Electives and gen-ed courses | |
| Year 3 | 300/400-level Math (3), Analysis, Algebra, or Topology (3) | | 300/400-level Math (3), Analysis, Algebra, or Topology (3) | |
| Shared/Gen-Ed's | Electives and gen-ed courses | | Electives and gen-ed courses | |
| Year 4 | 500/600-level MATH Elective (3) | Data Ethics (3-4) | | DS Elective (3) |
| Shared/Gen-Ed's | Electives and gen-ed courses | | MATH/DS Elective * (3) , Electives and gen-ed courses | |

Below is a 5-semester and 3-semester plan for students who may have less than two years to complete the Data Science certificate.

5 SEMESTER PLAN

| Semester 1 | Semester 2 | Semester 3 | Semester 4 | Semester 5 |
|------------------|--------------|-------------------|-----------------|-----------------------------|
| COMP SCI 220 (4) | STAT 240 (4) | Data Ethics (3-4) | DS Elective (3) | MATH/DS Elective (3) |

3 SEMESTER PLAN

| Semester 1 | Semester 2 | Semester 3 |
|------------------|---------------------------------|---|
| COMP SCI 220 (4) | STAT 240 (4), Data Ethics (3-4) | MATH/DS Elective (3) , DS Elective (3) |

*Overlapping MATH/DS electives include MATH 444, 535, and 616. There may be additional courses that count if you are pursuing a Math named option. Please consult your advisor for more information.

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