

B.S. in CFRM: Data Science Option

63-67 CREDITS; 180 TOTAL CREDITS REQUIRED FOR GRADUATION

Mathematics (15 credits)

- | | Credits: |
|---|----------|
| <input type="checkbox"/> MATH 124 or 134 - Calculus I | (5) |
| <input type="checkbox"/> MATH 125 or 135 - Calculus II | (5) |
| <input type="checkbox"/> MATH 126 or 136 - Calculus III | (5) |

Computing (7 credits)

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| <input type="checkbox"/> AMATH 301 - Beginning Scientific Computing | (4) |
| <input type="checkbox"/> CFRM 425 - R Programming for Quantitative Finance | (3) |

Introductory Applied Mathematics (9 credits)

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|---|-----|
| <input type="checkbox"/> AMATH 351 - Intro to Differential Equations and Applications | (3) |
| <input type="checkbox"/> AMATH 352 - Applied Linear Algebra and Numerical Analysis | (3) |
| <input type="checkbox"/> AMATH 353 - Partial Differential Equations and Waves | (3) |

Quantitative Finance (12 credits)

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|---|-----|
| <input type="checkbox"/> CFRM 405 - Mathematical Methods for Quantitative Finance | (3) |
| <input type="checkbox"/> CFRM 410 - Probability and Statistics for Computational Finance | (3) |
| <input type="checkbox"/> CFRM 415 - Introduction to Financial Markets | (3) |
| <input type="checkbox"/> CFRM 420 - Intro to Computational Finance and Financial Econometrics | (3) |

Requirements for Data Science Option: 20-24 credits

Data Science (17-19 credits)

- 1) One of:** AMATH 481 - Scientific Computing or (5)
 CSE 163 - Intermediate Data Programming (4)

- 2) One of:** AMATH 482 - Computational Methods for Data Analysis or (5)
 CSE 414 - Introduction to Database Systems or (4)
 INFO 430 - Database Design and Management (5)

- 3) Complete:** AMATH 483 - High Performance Scientific Computing (5)

- 4) One of:** CFRM 421 - Machine Learning for Finance or (4)
 CSE/STAT 416 - Introduction to Machine Learning or (4)
 STAT 435 - Introduction to Statistical Machine Learning (4)

Society and Data (3-5 credits)

- 5) One of:** INFO 351 - Information Ethics and Policy or (4)
 SOC 225 - Data and Society (3/5)

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[General Education requirements for College of Arts and Sciences students](#)

Minimum 2.00 cumulative GPA in courses applied to the major.

Degree Planning Instructions:

1. Refer to the degree planning sheet above to select classes in [MyPlan](#).
2. Log into myplan.uw.edu
3. Find the courses you need and add them to your plan for upcoming quarters. Use the “View Academic Year” feature from the MyPlan homepage or left sidebar to add courses. Note: if a course is not available yet in MyPlan, you can still manually add a class to your plan from the course schedules linked below.
4. Once your plan is complete, we recommend that you make your MyPlan viewable to advisors by clicking your name at the top right of the screen and making sure “shared” is selected in the settings. An advisor will then review it for approval. Alternatively, you can save a pdf copy of the Academic Year(s) page and email it to amathadv@uw.edu.

Course Planning and Registration Resources:

AMATH Course Catalog: <http://www.washington.edu/students/crscat/appmath.html>

CFRM Course Catalog: <http://www.washington.edu/students/crscat/cfrm.html>

AMATH/CFRM Course Schedule: <https://amath.washington.edu/courses>

Time Schedule: <https://www.washington.edu/students/timeschd/>

MyPlan: <https://myplan.uw.edu/home/>

MyPlan Support:

<https://itconnect.uw.edu/tools-services-support/academic-planning/myplan-academic-planner/>