UCI Mathematics
Concentration in Data Science
Advising Document

The *Data Science Concentration in Mathematics* offers math students the opportunity to obtain the theoretical and computational skills relevant in graduate school or a job in Data Science.

What Does It Take To Be a Data Scientist?
A data scientist weaves skills from statistics and computer science to analyze data sets that too large or complicated for traditional methods. The job of the data scientist is to take their analyses and present observations and suggestions for how to best optimize or leverage the given situation. An effective data scientist has a strong statistical background, fluency with computer programming (especially in R and Python), and a solid mathematical background in optimization and probability.

I'm Interested in the DS Concentration…What Should I do?
Before applying for the Data Science concentration in Math, *a student should complete all of the lower-division requirements for the concentration.* In particular, successfully completing Math 10 (Intro to Prog in Data Science) is important, as it give students a good taste of what a Data Scientist can do. As many of the upper-division DS courses require pre-requisites, the following courses should be prioritized in your schedule, even if you have not yet applied for the DS concentration:
- Math 9 (Intro to Prog for Numerical Analysis)
- Math 10 (Intro to Prog for Data Science)
- Math 13 (Intro to Abstract Math)
- Math 121A (Linear Algebra)

When Should I Apply for the DS Concentration?

When you apply, we will be checking to ensure that you have a 3.0 Math GPA and have completed all of the following lower-division Data Science concentration courses:

- Math 2A,2B,2D,2E
- Math 3A,3D
- Math 9, 10, 13
- Stats 7
- Physics 7C

After you have successfully completed these courses, contact DS advisors Bob Pelayo (rcpelayo@uci.edu) to schedule an appointment.

I'm Ready to Apply. What Should I do?

After scheduling an appointment with the DS advisor, fill out the DS concentration application as best you can. The majority of the form asks you to indicate when you completed certain courses and when you plan on completing future courses. Helpful documents in this process can be found at the following sites:

- UCI Math Course Catalogue
- UCI Major (and Concentration) Requirements
- Course Offerings for Current Academic Year
- Concentration Forms and Application

Questions?

Please contact Dr. Bob Pelayo, the Data Science advisor for the Mathematics department: rcpelayo@uci.edu