SCHOOL OF DATA SCIENCE AND SOCIETY

Introduction

The School of Data Science and Society (SDSS) was founded in 2022 with a mission to serve the state, the nation, and the world with premier data science educational programs and unique, collaborative research programs directed to advance the public good. SDSS seeks to shape the emerging field of data science with a human-centric approach to the entire data life cycle and envisions a world made healthy, safe, and prosperous through data-informed decisions. The school offers learner-focused programs that develop core competencies in data science, provide workforce preparation, and offer inclusive communities of practice.

Admission to the Major

Those wishing to declare the Bachelor of Science (B.S.) in data science must be admitted to the School of Data Science and Society. Students are eligible to apply in the spring semester after completing or while currently enrolled in the prerequisite courses. Please see the school's website (https://datascience.unc.edu/undergraduate-degrees/) for the most up-to-date information about the admission to the major process.

Advising

Once a student accepts admission for the Bachelor of Science in Data Science**,** it becomes the primary major**.** In addition to general advising through UNC Advising (https://advising.unc.edu/), students will receive a faculty advisor in the School of Data Science and Society. School of Data Science and Society Academic Affairs Office manages additional student support services, including community-building activities and career preparation.

Students admitted to the data science **minor** should continue to work with their major department for academic matters. All students should meet regularly with their advisor and monitor their progress toward completion of both the data science major and minor requirements utilizing Tar Heel Tracker.

Preparing for the Bachelor of Science in Data Science

A student admitted to the School of Data Science and Society typically begins the Undergraduate Bachelor of Science in Data Science program in the spring semester of the second year or fall semester of the third year. First- and second-year students in the General College who consider themselves pre-data science B.S. majors complete certain prerequisite courses as part of their General Education requirements.

A pre-data science track includes successful completion (defined as earning a final grade of at least a C, not C-) of the following courses (or their equivalents):

Code	Title	Hours
DATA 110	Introduction to Data Science	3
One of the following:		
STOR 120	Foundations of Statistics and Data Science [F]	
COMP 110	Introduction to Programming and Data Science [H]	
COMP 116	Introduction to Scientific Programming	
MATH 231	Calculus of Functions of One Variable I [H, F]	4
MATH 232	Calculus of Functions of One Variable II [H, F]	4
One of the following:		
MATH 233	Calculus of Functions of Several Variables [H, F]	
MATH 235	Mathematics for Data Science	
MATH 347	Linear Algebra for Applications	3
One of the following:		
STOR 315	Discrete Mathematics for Data Science	
COMP 283	Discrete Structures [H]	
MATH 381	Discrete Mathematics [H]	

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

Major

- Data Science, B.S. (https://catalog.unc.edu/undergraduate/programs-study/data-science-major-bs/)

Professors

Stan Ahalt, David Aldalssteinson, Amarjit Budhiraja, Terry Magnuson, Steve Marron, Jack Snoeyink.

Associate Professors

Youzuo Lin, Yifei Lou, Hsun-Ta Hsu, Santiago Olivella, Keriayn Smith.

Assistant Professors

Iain Carmichael, Can Chen, Anita Crescenzi, Neil Gailkwad, Dan Kessler, Harlin Lee, Alex McAvoy, Lina Montoya, Courtney Rivard, Justin Sola, Huaxiu Yao.

Teaching Professors

Richard Marks, David Yokum.

DATA–Data Science

Undergraduate-level

DATA 110. Introduction to Data Science. 3 Credits.
This course is a broad, high-level survey of the major aspects of data science including ethics, best practices in communication (e.g. data visualization), mathematical/statistical concepts, and computational thinking. Students will gain an understanding of the fundamentals of data science to support more in-depth, advanced coursework that are requirements for the data science majors.

Rules & Requirements

IDEAs in Action Gen Ed: FC-QUANT.
Grading Status: Letter grade.

DATA 120. Ethics of Data Science and Artificial Intelligence. 3 Credits.
In an era of rapid advancements in data science and AI, ethical concerns related to data-intensive technologies are now of utmost importance. This course immerses students in data science ethics, facilitating a comprehensive exploration of the intricate interplay between data and societal values. By nurturing critical thinking grounded in ethical theories, this course provides students with a strong foundation in designing and analyzing data-intensive ecosystems that emphasize values such as fairness, accountability, ethics, and transparency.

Rules & Requirements

IDEAs in Action Gen Ed: FC-VALUES.
Grading Status: Letter grade.

DATA 130. Critical Data Literacy. 3 Credits.
How do you become data literate? Data literacy is the ability to read, write, and communicate data in context, or in other words: perform data analysis, construct a data visualization, and then communicate that data. It is the story that gets told with the data. Data literacy helps us to understand data, learn about different types and scales of data, and understand why this is important in the world today.

Rules & Requirements
Grading Status: Letter grade.

DATA 140. Introduction to Data Structures and Management. 3 Credits.
Data structures provide a means to manage large amounts of data for use in our databases and indexing services. A data structure is a specialized format for organizing, processing, retrieving and storing data. There are several basic and advanced types of data structures, all designed to arrange data to suit a specific purpose. Data structures make it easy for users to access and work with the data they need in appropriate ways.

Rules & Requirements
Grading Status: Letter grade.

DATA 150. Communication for Data Scientists. 3 Credits.
The ability to collect and analyze data has changed virtually every field, yet data scientists often lack the ability to present their findings in effective formats. This class uses storytelling to help you connect with your audience and present your data in compelling and understandable ways so stakeholders can make the right decisions with data. Through hands-on exercises, you'll learn the advantages and disadvantages of oral, visual, and written formats.

Rules & Requirements
Grading Status: Letter grade.

Advanced Undergraduate and Graduate-level

Contact Information

School of Data Science and Society
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