



Data Science, B.S.

Data scientists gather and investigate data and extract meaningful insights and hidden trends. They also use machine learning algorithms to build predictive models which have a wide range of applications, from TikTok recommendations to predicting the next COVID variant to surge. At Cal Poly Humboldt, we are particularly passionate about “Data for Good” and believe Data Science can help solve many challenges addressing our society from housing inequity to climate change.

Experience Your Learning

Coursework centers around hands-on, applied learning experiences, which include projects that are community-based.

Students choose an area of application and take approved courses in a related discipline. For example, students interested in careers that critically analyze crime patterns, access to justice, policy, or advocacy would select a set of courses offered through the Criminology & Justice Studies major.

First-year, first-time students who major in Data Science, Computer Science, Mathematics, and Software Engineering will be automatically enrolled in Representing Realities. One of several place-based learning communities at Humboldt, this free year-long program of science and general education (GE) courses and activities focuses on the world of math and computation.

Students will have the opportunity to analyze real case studies of ethics in data science relating to privacy issues and the biases that are often inherently built into data.

Courses are designed to help students build a portfolio of work they can show potential employers after graduation.

Did you know?

- The Bureau of Labor Statistics considers data science in the top 20 fastest growing occupations.
- Whether it's the protection of personally identifiable data or implicit bias in automated decision-making, the dangers of data science without ethical considerations are as clear as ever. Students explore the ethics aspect of data science, specifically how data is gathered and how it is protected to be aware of and take biases out of data.
- Every day, approximately 1.145 trillion megabytes of data are produced and this will continue to grow.



Academics & Options

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Students will develop and practice skills in synthesizing knowledge and applying contemporary statistics, data analysis, and computational science methods to solve social and environmental problems.

Get Involved

Student Organizations

Math Club (The Natural Loggers): Have an interesting math problem you are working on? Enjoy solving problems? Our goal is to learn about interesting mathematics and create an inclusive community of math lovers.

Computer Science Club: A club that creates a welcoming atmosphere for everyone while creating engaging events to help spread the wonders of technology to the community.

Competitions

Annual Hackathon: Every Spring, Humboldt students gather at the Library for a weekend to collaborate in solving difficult problems with a unique, effective, and elegant solution. It's a chance to participate in diverse projects that tackle everything from solving issues relevant in our local community to playing with the latest VR-based video game technology. Teams may comprise members from any background ranging from art, business, psychology and sociology, to environmental, geospatial engineering and computer science.

Mathematical Contest in Modeling: This international contest challenges high school students and college undergraduates to clarify, analyze, and propose solutions to open-ended problems. The contest attracts diverse students and faculty advisors from over 900 institutions around the world.

Kaggle Competitions: Kaggle is a massive online data science community and platform that hosts thousands of user-hosted and generated competitions.

Careers

Data science methodologies build skills and knowledge that are being applied to nearly every field in natural and social sciences and the humanities. The Data Science program provides a pathway for students to prepare for a growing number of data-rich professions.

- Data Analyst
- Data Manager
- Data Analytics Project Manager
- Risk Analytics
- Data Researcher
- Data Scientist

