Introduction to the Major

Data is ubiquitous, impacting all. Expertise in data is essential across industries and society, enabling impactful change.

Clark University's Data Science major offers interdisciplinary training in quantitative analysis and machine learning, emphasizing the role of data science in promoting smart policies, equitable practices, and inclusive communities. The program addresses ethical and social implications of data use while empowering students with versatile skills for diverse fields. The graduates are prepared to tackle real-world challenges and make a positive societal impact.

CORE COURSES

At Clark, study data science in a small liberal arts university with diverse programs and strong interdisciplinary collaborations. Choose from focused tracks like biology, chemistry/biochemistry, computer science, economics, environmental science, game design/production, geography, management, mathematics, physics, and psychology, with more in development. The major requires 14 course units, including the following core courses:

- DSCI 105 - Applied Data Analytics
- DSCI 122 - Mathematical Foundations of Data Science
- DSCI 125 - Introduction to Data Science
- DSCI 215 - Applying Deep Learning to Earth Observation
- DSCI 216 - Stochastic Computing
- DSCI 225 - Applied Machine Learning

HIGHLIGHTS

- Develop expertise that is vital in the modern workforce and transcends industries.

- Enjoy a satisfying career with increasing demand for professionals who can analyze and extract insights from diverse data.

- Shape policies and pratices by harnessing data to inform decisions and drive innovation.

"**The supportive community, inspirational faculty, interdisciplinary curriculum, and various research opportunities at Clark have fostered my growth as a data science student.**"

— NGUYEN HA '23

DESIGN YOUR JOURNEY >

Explore and navigate Clark curriculum

Connect and engage with communities

Discover and pursue your passions

Develop professional skills

Reflect, design and plan

YEAR 1

☐ **Settle into college life and take care of your well-being**

Create a daily routine for yourself and cultivate effective study practices. Explore campus and begin forging friendships. Take breaks, have fun. Don't hesitate to reach out to your friends, professors, advisers, or CPG if you need help.

☐ **Get to know the data science program and dive into intro courses**

Connect with your professors and current students to learn about the major and potential paths. Take one or more introductory courses in computing, math, and data science.

☐ **Identify potential Clark Core courses**

Work with your adviser to select courses that match your interests and plans. Some data science courses, such as CSCI 120/124 (SP), DSCI 103 (FA, DI), ECON 010 (GP), GAME 025 (AP), MATH 133 (FA), MGMT 100 (VE), fulfill core requirements.

☐ **Learn about campus resources**

Make ClarkYou your default Clark page and explore student resources such as Division of Student Success, Writing Center, Quantitative Skills Center, and Career Connections Center (CCC).

☐ **Get involved and start networking**

Explore student organizations and events that align with your interests. Create a ClarkCONNECT profile and start meeting alumni in fields you are considering.

YEAR 2

☐ **Reflect and plan**

Have meaningful conversations with your advisers and faculty mentors. Share your experiences, outline your future plans, and seek their valuable guidance in realizing your goals.

☐ **Dig in and identify your data science interests**

Take core and elective data science courses to shape your path. Engage with faculty, including the Program Director, for information and insights on selecting courses and a track aligned with your interests.

☐ **Declare your major**

Complete the major declaration form and get a data science faculty to serve as your adviser. Also consider a double major and/or minor to round out your studies.

☐ **Explore career paths and build your network**

Connect with faculty, career advisers, and upperclass students to explore internships, job, and graduate school options. Seek their expertise for enhancing your resume, cover letters, and webpages. Expand your network, attend department seminars, and participate in career fairs.

☐ **Search and apply for opportunities**

Discover on-campus positions like teaching and research assistantship or the ITS Helpdesk. Utilize Handshake and online searches to explore external opportunities such as internship programs for beginner students. Apply for positions that align with your interests and qualifications.

WHAT CAN I DO WITH MY MAJOR?

JOBS & EMPLOYERS

With the growing adoption of data technologies by companies and organizations, Clark data science graduates can pursue rewarding careers across diverse fields.

GRADUATE PROGRAMS

Alumni can pursue studies in fields like data science, computer science, statistics, geospatial data/ business/ game/sports analytics, economics, law, and more.

YEAR 3

☐ **Stay on track and plan ahead**

Take time to reflect on your academic and professional growth. Identify skills you aim to develop and experiences you wish to pursue. Prioritize self-care and utilize campus resources for guidance and support.

☐ **Maintain progress towards your major and consider the ADP options**

Continue with your data science courses and strategize for a capstone experience or honors project. Explore the accelerated degree program (ADP) for options to earn a bachelor's and a master's degree in five years, and apply if interested.

☐ **Go beyond the classroom**

Secure a campus position, create/lead student clubs, and give back to the community. Support underclass students and develop valuable skills in leadership, teamwork, collaboration, and communication.

☐ **Strengthen your network**

Engage with Clark alumni to gain insights into their post-college career paths. Maintain strong connections with existing contacts and develop new relationships.

☐ **Apply for internship/research opportunities**

Start early and apply diligently. Seek advice from faculty, advisers, alumni, and upperclass students for search and application strategies. Prepare applications and interviews meticulously, and leverage connections for success.

YEAR 4

☐ **Finish strong**

Senior year is an exciting and demanding time. Job and graduate school applications are time-consuming, so it's crucial to plan ahead. Prioritize your well-being and make use of the resources available on campus.

☐ **Complete graduation requirements and showcase your learning**

Continue tracking and meeting important deadlines, make sure to complete all requirements. Present your projects at ClarkFEST and check out other Clarkies' work.

☐ **Apply for jobs and/or graduate programs**

Start early, stay organized, research and tailor your applications to highlight your strengths and experiences. Reach out to your network for advice and connections. Practice for interviews and maintain professional communications throughout the process.

☐ **Contribute to the community**

Continue your campus engagement, share your experience and insights with upperclass students, play an active role in student activities and community service opportunities.
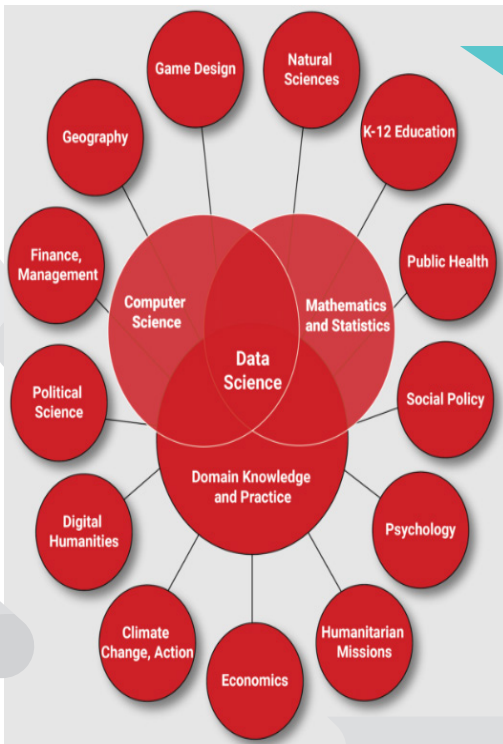
☐ **Prepare to launch**

Join the Clark alumni community and seek advice from senior alumni. By tapping into this network, you can gain invaluable guidance and support as you navigate the exciting opportunities that lie ahead. Also, the faculty and staff will still be resources available to you.

AMPLIFY YOUR MAJOR!

The world thrives on data. So can your career and contributions to society.

Clark University's Data Science program provides a comprehensive interdisciplinary education that seamlessly intergrates core data science, computer science, and mathematics courses with specialized domain knowledge. Through this holistic curriculum and experiential learning, students acquire the knowledge and expertise needed to thrive in dynamic and data-driven industries, secure top-tier placements and unlock opportunities for advanced degrees. They are well prepared for making transformative changes in today's data-rich world.

CONNECT WITH US!

7 Hawthorne Street, MACD Building

Worcester, MA 01610

Email: DS@clarku.edu

Advising

We support you throughout your Clark journey and beyond.

Alongside your first-year and major advisers, the Data Science (DS) faculty is readily available to offer information and guidance regarding the DS major and courses.