

BS in Data Science (695217) MAP Sheet



Computational, Mathematical, & Physical Sciences

For students entering the degree program during the 2025-2026 curricular year.

FRESHMAN YEAR

1st Semester

MATH 112 4.0
C S 111 3.0
STAT 121 3.0
STAT 115 0.5
UNIV 101 2.0
Religion Cornerstone course 2.0
Total Hours 14.5

2nd Semester

C S 180 3.0
MATH 113 4.0
A HTG 100 3.0
First Year Writing 3.0
Religion Cornerstone course 2.0
Total Hours 15.0

SOPHMORE YEAR

3rd Semester

STAT 230 3.0
C S 270 3.0
MATH 213 2.0
MATH 215 1.0
GE Arts, Letters, Sciences 3.0
Arts, Letters, Sciences 3.0 Religion
Cornerstone course 2.0 Total
Hours 17.0

4th Semester

STAT 281 3.0
C S 235 3.0
GE Arts, Letters, Sciences 3.0
Arts, Letters, Sciences 3.0 Religion
Cornerstone course 2.0 Total
Hours 14.0

JUNIOR YEAR

5th Semester

C S 240 4.0
STAT 330 3.0
MATH 380 3.0
WRTG 316 (recommended) 3.0
Global and Cultural Awareness 3.0
Total Hours 16.0

6th Semester

STAT 240 3.0
STAT 386 3.0
C S 452 3.0
GE Arts, Letters, Sciences 3.0
Religion 2.0

Total Hours 14.0

SENIOR YEAR

7th Semester

PHSCS 383 3.0
STAT 251 3.0
C S 404 2.0
Requirement 6 Elective 1 3.0
Requirement 6 Elective 2 3.0
GE Religion 2.0
Total Hours 16.0

8th Semester

Requirement 6 Elective 3 3.0
Requirement 6 Elective 4 3.0
Requirement 7 Elective 3.0
GE Arts, Letters, Sciences 3.0
GE Religion 2.0
Total Hours 14.0

See University Core requirements here:

<https://catalog.byu.edu/generaleducation>

THE DISCIPLINE

Data scientists leverage advanced statistical and computational methods to analyze increasingly large and complex datasets, driving insights that shape decision-making across industries such as business, government, healthcare, environmental policy, and technology. The curriculum and degree program offered in the College of Computational, Mathematical, and Physical Sciences are designed to equip students with the technical expertise and critical thinking skills required for careers in data science, artificial intelligence, and analytics across industries, including technology firms, government agencies, financial institutions, pharmaceutical companies, universities, and research organizations. Emphasizing computational efficiency, reproducibility, and ethical data use, the program ensures graduates are well prepared to tackle real-world data challenges.

The Data Science major is structured to provide students with a well-rounded foundation in programming, data structures and algorithms, machine learning, statistical modeling, and data ethics, along with hands-on experience working with real-world datasets and cloud-based computing tools. The curriculum fosters collaboration and problem-solving skills essential for working in interdisciplinary teams. Graduates of the Data Science major at BYU develop a versatile, systematic approach to data analysis, enabling them to build scalable models, interpret complex statistical results, and effectively communicate insights to diverse stakeholders.

CAREER OPPORTUNITIES

The rapid expansion of data science, artificial intelligence, and analytics across industries has created an unprecedented demand for skilled professionals who can extract insights from complex datasets. The Data Science major equips students with the technical expertise and analytical mindset needed to pursue careers in AI-driven analytics, machine learning engineering, data engineering, and business intelligence, among others. With industries such as finance, healthcare, biotechnology, cybersecurity, autonomous systems, sports analytics, climate science, and government increasingly relying on **data driven** decision-making, career opportunities for data scientists continue to evolve and expand. This major provides students with essential skills in programming, machine learning, deep learning, cloud computing, and data engineering, along with hands-on experience in big data processing, generative AI, and real-time analytics. Graduates are well-prepared to work in startups, Fortune 500 companies, research institutions, and government agencies, contributing to cutting-edge innovations in AI, automation, and predictive analytics while collaborating effectively in interdisciplinary teams

INTERNSHIPS

Undergraduate students have access to a number of paid internships that provide hands-on experience in data science applications across industries. These internships not only offer practical experience and exposure to real-world datasets but also provide valuable industry connections, mentorship, and a competitive edge in the job market. Many companies seek interns with experience in Python, SQL, cloud platforms, machine learning frameworks, and data visualization tools

To maximize their chances of securing top-tier internships, students should actively engage with Career Services, participate in hackathons and data modeling competitions, contribute to open-source projects, attend industry networking events, and leverage online professional platforms to showcase their skills. Additionally, exploring research opportunities within the university, joining student-run data science organizations, and applying early for competitive programs can help students gain valuable experience before entering the workforce.

DEPARTMENT INFORMATION

Department of Statistics
2152 WVB
Provo, UT 84602
Telephone: (801) 422-4505
Point of Contact: Kimri Mansfield
Telephone: (801) 422-4506

DEPARTMENT INFORMATION

College of Computational, Mathematical, & Physical
Sciences
N-181 ESC
Provo, UT 84602
Telephone: (801) 422-2674

ADVISEMENT

For guidance on the Data Science major, students are encouraged to reach out to the Statistics Department for academic advising, course recommendations, and career insights. For questions related to university core or general education requirements, students should consult the college advisement center, where academic advisors can provide personalized support in planning their coursework and meeting graduation requirements.

MAP DISCLAIMER

While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed requirements. Please refer to the university catalog and your college advisement center/department for complete guidelines.