

DATA ANALYTICS MINOR

Program Description

As society becomes increasingly dependent on data, new knowledge, skills, and professions are emerging to collect, organize, interpret, and use data. Data analytics uses data-driven techniques to transform raw data into useful information — information that may be used to identify and solve problems, evaluate claims and make inferences, and influence human decisions and machine models.

Data Analytics is used in nearly every professional domain, including business and government, health and social services, and science and education. The minor in Data Analytics is an excellent supplement to any major, providing valuable skills for employment in many careers.

Entering and Completing the Minor

In order to earn a degree, you must complete at least one academic major. Minors are not required except for students in the Professional Studies (BA). SPU encourages students to explore various academic paths, including minors, so if you change your mind about a minor or want to include an additional minor, you are able to do so as outlined below.

Note that the University encourages you to enter your chosen minor(s) as soon as you have determined it and are eligible to join it, especially by the start of your junior year. Students who transfer as juniors and seniors should enter a minor within their first two quarters at SPU.

- If this is your first quarter at SPU, request entrance to your minor in Banner by following these instructions (<https://spu.atlassian.net/l/cp/Th4S0jCE/>).
- If you are an SPU student with an SPU cumulative GPA of 2.0 or better, follow these instructions (<https://spu.atlassian.net/l/cp/Th4S0jCE/>) to enter a minor in this department.
- The University requires a grade of C- or better in all classes that apply to a minor; however, programs may require higher minimum grades in specific courses. You may repeat an SPU course only once for a higher grade.
- To advance in this program, meet with your faculty advisor regularly to discuss your grades, course progression, and other indicators of satisfactory academic progress. If your grades or other factors indicate that you may not be able to successfully complete the minor, your faculty advisor can work with you to explore options, which may include choosing a different minor.
- You must complete the minor requirements that are in effect in the SPU Undergraduate Catalog for the year you enter the minor.

Data Analytics Minor

30 credits total, including 15 upper-division

Code	Title	Credits
Data Analytics Core		
MAT 3380	Introduction to Data Science	5
or DAT 3380	Introduction to Data Science	
DAT 4500	Data and Society	5
Section Credits Required		10
Introductory Statistics ¹		
BUS 2700	Statistics for Business and Economics	

CRIM 2360 Introduction to Statistics in Social and Behavioral Sciences

or PSY 2360 Introduction to Statistics in Social and Behavioral Sciences

or SOC 2360 Introduction to Statistics in Social and Behavioral Sciences

EGR 2200 Engineering Probability and Statistics

or MAT 2200 Engineering Probability and Statistics

MAT 2360 Introduction to Statistics for the Sciences

Section Credits Required 5

Regression Modeling

BIO 4360 Biostatistics

BUS 3700 Quantitative Methods for Decision Making

MAT 3333 Statistical Modeling

PSY 4428 Advanced Statistical Analysis

Section Credits Required 5

Electives from Two Different Disciplines (10-12 credits to total 30)

BUS 4650 Data Analytics and Visualization

CSC 1130 Beginning Programming

CSC 1230 Problem Solving and Programming

CSC 2230 Computer Programming for Engineers

CSC 3011 Living in a Digital World

CSC 4410 Database Management

CSC 4800 Advanced Issues in Computer Science

DAT 4380 Introduction to Machine Learning

JRN 3203 Data Journalism

LIN 2500 Computational Linguistics I

LIN 4500 Computational Linguistics II

MAT 2401 Linear Algebra

MAT 3360 Probability and Statistics

MAT 4363 Mathematical Statistics

PSY 3448 Tests and Measurements in Psychology

PSY 3588 Psychological Research Methods

PSY 4430 Data Analytics and Storytelling for Consumer and Social Sciences

SOC 4751 Sociological Research Methods

Section Credits Required 10

Total Credits 30

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Introductory Statistics course to be taken before MAT 3380