

DATA VISUALIZATION CERTIFICATE

SOCI 318	Sociological Research Methods
STAT 216	Introduction to Statistics
Total Hours	12

The Data Visualization Certificate brings together courses from diverse disciplines to provide the knowledge and skills required to build meaningful data visualizations. Students discover how artistic design, Big Data analytics, and research methods come together with the help of data visualization software tools to effectively communicate information.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (<https://catalog.umn.edu/academics/graduation-requirements/>).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (<https://catalog.umn.edu/academics/policies-procedures/>) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

POST-SECONDARY CERTIFICATE - DATA VISUALIZATION

Course Requirements

Code	Title	Hours
Technology Component		
Complete the following course:		
ANTY 491	Special Topics (Data Visualization Tools)	3
Analytic Component		
Complete the following course:		
BMIS 326	Introduction to Data Analytics	3
Design and Communication Component		
Complete the following course:		
ARTZ 380	Data Arts	3
Research Methods Component		
Complete one of the following courses:		
ANTY 401	Anthropological Data Analysis	3
ANTY 412	Osteology	
ANTY 431	Ethnographic Field Methods	
ANTY 455	Artifact Analysis	
COMX 460	Research Methods	
ECNS 403	Introduction to Econometrics	
EDU 421	Statistical Procedures in Education	
JRNL 414	Investigations	
LING 475	Linguistic Field Methods	
PSCI 342	Media, Public Opinion, Polling	
PSYX 120	Introduction to Psychological Research Methods	
PSYX 222	Psychological Statistics	
SOCI 202	Social Statistics	