

CROSS DISCIPLINARY STUDIES MINOR IN DATA SCIENCE

Minor Requirements and Curriculum

The minor must be completed prior to, or at the same time as, the requirements for the bachelor's degree. A major and a minor may not be taken in the same degree program, and a minor is not required for a degree. Requirements for the minor include:

- At least half of the units must be from upper-division courses (3000-4000 level).
- At least half of the units must be taken at Cal Poly (in residence).
- No more than one-third of the units will be taken with credit-no credit grading (CR/NC), not counting courses with mandatory CR/NC. Departments may further limit CR/NC grading if desired.
- A minimum 2.0 GPA is required in all units counted for completion of the minor.

Code	Title	Units
REQUIRED COURSES		
CSC 1001 & 1001L	Fundamentals of Computer Science and Fundamentals of Computer Science Laboratory	4
CSC 2001 & 2001L	Data Structures and Data Structures Laboratory	4
CSC 3449	Algorithms and Complexity	4
CSC 3665	Introduction to Database Management Systems	4
DATA/STAT 1810	Introduction to Statistical Computing with R	3
DATA 3301	Introduction to Data Science	4
DATA 4401	Data Science Process and Ethics	4
DATA 4460	Senior Project - Data Science Capstone	2
DATA/CSC 4610	Fundamentals of Machine Learning	4
DATA/CSC 4620	Foundations and Applications of Deep Learning	4
MATH 1151 or MATH 2341	Linear Algebra Linear Analysis	3-4
MATH/DATA 1264 or MATH 1261	Calculus for Data Science I Calculus I	4
MATH/DATA 1265 or MATH 1262	Calculus for Data Science II Calculus II	4
MATH 2031	Transition to Advanced Mathematics	3
MATH/DATA 2621 or MATH 4653	Introduction to Mathematical Optimization Numerical Optimization	3
STAT 1510 or STAT 3210	Statistics I Engineering Statistics	3
STAT 2610	Introduction to Probability and Simulation	3
STAT 3520	Statistics II	3
STAT 3530	Applied Linear Models	4
Total Units		67