Data Science Major Planning Worksheet

Foundation Courses - 4 classes		
Requirement	**Info**	**Notes**
Statistics (one class)	MATH 111 or POLI 202 or PSYC 250	
Programming (one class)	GIS/DATA 167 Introduction to Programming in Python (offered every Spring) CS 110 Introduction to Programming (offered every semester)	
Mathematical Foundation (one class)	DATA 100 Math for Data Science (offered every Spring) - In place of this class we would also accept and one of: MATH 241 Linear Algebra, MATH 311 Probability, ECON 344 Mathematical Economics.	
Introduction to Data Science (one class)	DATA 101 Introduction to Data Science (offered every Fall) - In place of this class we would also accept CS 211 Introduction to Data Science.	

Intermediate Courses – 3 classes		
Requirement	**Info**	**Notes**
Intermediate Data Science (one class)	DATA 201 Intermediate Data Science (offered every Fall, starting 2025)	
Database Management (one class)	DATA 330 Introduction to Database Management (offered every Spring, starting 2026)	
A course in Ethics (one class)	PHIL110, PHIL211, PHIL212, PHIL 213, PHIL 215, PHIL 216, PHIL 221, PHIL 221. - Other courses with a focus on ethics can be applied to the major by department permission.	

Capstone Course – 1 class		
Data Science Capstone Project (1 class)	DATA 401 Data Science Capstone Project (offered every Spring starting 2027)	Topic idea:

❒ Students should work closely with a Data Science faculty advisor to choose remaining courses.
❒ Your area of application and electives courses will support your career pathway.

Elective Courses – at least 2 classes		
Electives should support an application area for your Data Science final project. CHOOSE TWO CLASSES	We highly recommend a second major or minor in another field of application. These must be at the 200 level or higher.	Area of Application:

Questions? joanna_bieri@redlands.edu

What will my class schedule look like?

Year 1	**Fall**	**Spring**	**May**	Comments
	FYS Intro to Statistics +2	Intro to Programming + 3		
Year 2	**Fall**	**Spring**	**May**	Comments
	Intro Data Science (DS) Ethics + 2	Math for DS + 3		
Year 3	**Fall**	**Spring**	**May**	Comments
	Intermediate DS + 3	Database Management + 3		
Year 4	**Fall**	**Spring**	**May**	Comments
	DS Elective 1 DS Elective 2 + 2	Capstone + 3		

According to the Bureau of Labor Statistics, data science jobs are projected to grow 35% between 2022 and 2032 – we are here to help you build your own pathway into Data Science!

Example Career Pathways:

Data Science + BS in Economics	Economic and Financial Analyst Market Analyst Marketing Scientist
Data Science + Mathematics Physics	Masters in Data Science/Statistics Machine Learning Engineer Data Engineer
Data Science + Biology Health Medicine and Society Kinesiology Communication Science Disorders	Clinical Analyst Healthcare Analyst Informatics Nurse
Data Science + Business Admin Global Business	Masters in Data Analytics Business Intelligence Developer
Data Science + Accounting	Data Analytics Systems and Controls Financial Technology
Data Science + English Creative Writing	Data Journalist Data Storyteller
Data Science + GIS Environmental Science/Studies	Geospatial Data Scientist
Data Science + Studio Art	Video Game Design Info-graphic Web Designer

and many more…..