(FALL22) DATA 151: Course Calendar

Updated automatically every 5 minutes

FALL 2022 // DATA 151 Course Calendar

Subject to Change

Course: Willamette University - DATA 151 - Introduction to Data Science			
Term: FALL 2022		Assignments	
1A: Aug 30 Topics: Syllabus, Introductions, and Community Building Service available in accessible support Motivating Questions: What is data science? What does data science mean to you? Related Reading: United Nations: Big Data for Sustainable Development (link)	1B: Sept 1 Topics:	Tasks: (Due 9/8) Sign up to DataCamp Student Survey HW #1: (Due 9/8) Dear Data Project: (Due 9/8) Complete project partner survey	
2A: Sept 6 Topics: Sampling Principles and Strategies Related Reading: iMStat - Ch 2: Study Design Sections: 2.1: Sampling Principles and Strategies	2B: Sept 8 Topics: • Experiments and Principles of Experimental Design Related Reading: • iMStat - Ch 2: Study Design Sections: • 2.2: Experiments • 2.3 Observational Studies	HW #2: (Due 9/15) Practice problems Project Milestone #0: (Due 9/15) Partner communication plan	
3A: Sept 13 Topics: Introduction to R and How to use the R Studio Cloud Introduction to R Markdown Basics of R (Part I)	3B: Sept 15 Topics: ■ Basics of R (Part II) Conditionals (if statements), types of loops, using simple functions, writing functions	HW#3: (Due 9/22) DC: Introduction to R Project Milestone #1: (Due 9/22) Project proposal - include three	



(FALL22) DATA 151: Course Calendar

Updated automatically every 5 minutes

DatSci : Cn T and 2 Ch 1: Getting started with R and RStudio Ch 2: R basics	<u> </u>	
AA: Sept 20 Topics: ■ Data Wrangling ■ Tidyverse (Part 1) - dplyr verbs Related Reading: ■ iDatSci - Ch 4 □ Ch 4: The tidyverse	4B: Sept 22 Topics:	HW #4: (Due 9/29) • DC: tidyverse Project Milestone #2: • Meet with Professor Smalley
5A: Sept 27 Topics: Importing Data Review for Midterm Related Reading: IDatSci - Ch 5 Ch 5: Importing data	5B: Sept 29 MIDTERM #1 R SKILLS CHECK	HW #5: (Due 10/6) DC: Importing Data in R Project Milestone #2: (if didn't meet week 4) Meet with Professor Smalley
6A: Oct 4 Topics: Introduction to data visualization ggplot2: The layered grammar of graphics Related Reading: IDatSci - Ch 7 and 8 Ch 7: Introduction to data visualization Ch 8: ggplot2	6B: Oct 6 Topics: • What is the exploratory data analysis (EDA) process? Related Reading: • R4DS: • Ch 7: Exploratory Data Analysis	HW #6: (Due 10/13) DC: Introduction to Data Visualization Project Milestone #3: (Due 10/13) EDA Step 1: Ask questions and form hypotheses
7A: Oct 11 Topics:	7B: Oct 13 Topics: ■ EDA for categorical data □ Tables and types of distributions	HW #7: (Due 10/20) ● DC: Exploratory Data Analysis with Categorical Data

and

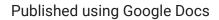
Related Reading:



(FALL22) DATA 151: Course Calendar

Updated automatically every 5 minutes

ropics:	I TODICS:	■ DU:
 EDA for numeric data Histograms Density plots Describing numeric distributions Mean Variance / standard deviation 	EDA for numeric data	Exploratory Data Analysis with Numerical Data Project Milestone #5: (Due 10/27) EDA Step #3: Distributions, Summary statistics, and
Related Reading: • iMStat: Ch 5 ○ Exploring numerical data	● iDatSci: Ĉh 12 ○ <u>Robust</u> <u>Summaries</u>	Comparing subgroups
9A: Oct 25 Topics: • Fun bonus topic! • Exploring spatial data • Advanced graphics	9B: Oct 27 Topics:	HW #9: (Due 11/3) ■ DC: Exploratory Data Analysis with
10A: Nov 1 Review for Midterm	10B: Nov 3 MIDTERM #2 DATA VIZ and DESCRIPTIVE STATISTICS	
	MIDTERM #2 DATA VIZ and	HW #10: (Due 11/17) • DC: Correlation and Regression
Review for Midterm 11A: Nov 8 Topics: Two Dimensional Relationships	MIDTERM #2 DATA VIZ and DESCRIPTIVE STATISTICS 11B: Nov 10 Topics: Introduction to simple linear	DC: Correlation and



Learn More

Report Abuse

(FALL22) DATA 151: Course Calendar

Updated automatically every 5 minutes

Project Presentations Day 3 2

Final Write-up in lieu of final exam. Due during the assigned final time by the registrar.