

Course Syllabus Part II

DSC 520 Statistics for Data Science

Course Resources

Course Text:

Discovering Statistics Using R. Sage Publications, 2012.
 R for Everyone. Pearson Education, 2017. 2nd Edition.

Course Schedule

Book 1: Discovering Statistics Using R

Book 2: R for Everyone

DataCamp: Datacamp.com – Students will receive email with instructions

Week: Topic	Reading	Assignments
Week 1: Introduction to R	<ul style="list-style-type: none"> Book 1: Chapter 1 Book 2: Chapters 1, 2 & 4 	<ul style="list-style-type: none"> DataCamp Exercise 1 1.1 Discussion
Week 2: Summarizing Data; Setting up Project and Using Scripts; Domain Uses of Data	<ul style="list-style-type: none"> Book 1: Chapters 2-3 Book 2: Chapter 6 	<ul style="list-style-type: none"> DataCamp Exercise 2 2.1 Assignment 2.2 Discussion
Week 3: Distributions, Data Plotting & Data Assumptions	<ul style="list-style-type: none"> Book 1: Chapters 4 Book 2: Chapter 18 	<ul style="list-style-type: none"> DataCamp Exercise 3 3.1 Assignment 3.2 Discussion
Week 4: Transformations & Markdown	<ul style="list-style-type: none"> Book 1: Chapter 5 Book 2: Chapter 28 	<ul style="list-style-type: none"> DataCamp Exercise 4 4.1 Discussion
Week 5: Correlation	<ul style="list-style-type: none"> Book 1: Chapter 6 Book 2: Chapter 18: Section 18.1 	<ul style="list-style-type: none"> DataCamp Exercise 5 5.1 Assignment 5.2 Discussion
Week 6: Getting Started with Regression	<ul style="list-style-type: none"> Book 1: Sections 7.1-7.5 Book 2: Chapter 18, Section 18.2 	<ul style="list-style-type: none"> DataCamp Exercise 6 6.1 Assignment 6.2 Discussion
Week 7: Multiple Regression	<ul style="list-style-type: none"> Book 1: Chapter 7: Sections 7.6-7.12.2 Book 2: Chapter 19 Section 19.2 – 19.3 	<ul style="list-style-type: none"> DataCamp Exercise 7 7.1 Assignment 7.2 Discussion
Week 8: Logistic Regression	<ul style="list-style-type: none"> Book 1: Chapter 8 	<ul style="list-style-type: none"> 8.1 Assignment 8.2 Assignment 8.3 Assignment
Week 9: Machine Learning and Final Project Step 1	<ul style="list-style-type: none"> Various Readings 	<ul style="list-style-type: none"> 9.1 Discussion 9.2 Assignment 9.3 Assignment

Week 10: Final Project Step 2	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • 10.1 Discussion
Week 11: Final Project Step 3	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • 11.1 Discussion
Week 12: Final Projects and the Future	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • 12.1 Discussion

Grade Breakdown/Criteria

<u>Grade Component:</u>	<u>Percentage/Weight</u>	<u>Point Value</u>	<u>Number</u>	<u>Total Points</u>
Assignments	35%	15-25 points ea.	9	205
Data Camp Exercises	15%	10 points ea.	7	90
Final Project Milestones	41%	60 points ea.	4	240
Discussion Board	9%	25 points ea.	2	50
Total	100%			585

Late Work

Late work is not accepted unless arrangements are made with the instructor for special circumstances.

Participation

Students are expected to login often and contribute to the class on a regular basis, including posting to the discussion board, submitting assignments, and participating in group activities as required. If you have specific participation requirements related to your educational funding or student status, you are expected to monitor your own participation to ensure you are in compliance with those requirements.

Expectations for Students

- Students should expect to spend approximately 10-15 hours per week to complete the activities and assignments in this course [as indicated in the credit hour verification].
- Students will log in as often as needed to complete their assignments and progress through the course.
- Students will treat their classmates and the instructor with respect and courtesy.
- Students are responsible for keeping current with the reading assignments and coming to class prepared to discuss the work assigned.
- Students are responsible for knowing what assignments are due and when.
- Students will submit only their own work and will not commit plagiarism or other acts of academic dishonesty.
- Students will contact the instructor as soon as personal problems arise that may affect the student's ability to complete assignments on time.

Expectations for Faculty

- The instructor will treat all students with respect and courtesy.
 - The instructor will make grading criteria clear and follow the criteria scrupulously in evaluating student work.
 - The instructor will provide feedback about student work within 6 days of due dates (or 24 hours prior to the next due date)—feedback that helps the student learn and improve.
 - The instructor will respond to all student messages within 48 hours.
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