Course Syllabus Part II
DSC 520 – Statistics for Data Science
3 Credit Hours

Course Resources
Discovering Statistics Using R. Andy Field, Jeremy Miles, and Zoe Field
Sage Publications
ISBN-13: 978-1446200469
ISBN-10: 1446200469

R for Everyone 2nd Edition, Jared P. Lander
Pearson Education
ISBN-13: 978-0134546926
ISBN-10: 013454692X

Required Resources:
In this course, you will need to be able to:

- Access the Internet.
- Access Cyberactive.
- Access Microsoft Teams.
- R programming environment
- Collaborate while writing a single document.
- Submit a Word Document.
- Access to GitHub account.

Course Schedule

Week	Topic	Reading
1	Intro to R & GitHub	*R for Everyone:* Chapters 1 -3 *Discovering Statistics Using R:* Chapter 1
2	Basics of R & Importing Data	*R for Everyone:* Chapters 4 – 6 *Discovering Statistics for R*: Chapter 2 (Chapter 3 is optional)
3	Plotting & Visualizing Data	*R for Everyone:* Chapter 7 *Discovering Statistics Using R*: Chapter 4
4	Introduction to Data Transformations	*R for Everyone:* Chapters 8 -11

		Discovering Statistics Using R: Chapter 5
5	Data Transformations Continued	*R for Everyone:* Chapters 12 - 16
6	R Markdown	*R for Everyone:* Chapter 28
7	Distribution & Correlation	*R for Everyone:* Chapters 17-18 *Discovering Statistics Using R*: Chapter 6
8 & 9	Simple & Multiple Regression	*R for Everyone:* Chapter 19 *Discovering Statistics Using R*: Chapter 7
10	Logistic Regression	*R for Everyone:* Chapter 20 *Discovering Statistics Using R*: Chapter 8
11 & 12	Machine Learning Concepts	*R for Everyone:* Chapters 23-25

Course Activities

In this section of the syllabus, I will describe what we will be doing in each of the activities for the course. Specifically, I will be describing your deliverables – those items you need to submit at or before the deadline. You can find more detail on grading criteria for each category by viewing its detailed rubric.

Discussion/Participation

Every week you will be required to make 10 posts via an online platform. The goal is to simulate real world discussion and participation – there will not be formal posts required or required topics to discuss. There may be optional topics provided to start discussion, however, sharing information, troubleshooting, asking questions/feedback, etc. will be the primary focus for discussion/participation. Discussion/Participation will be graded as follows:

# of Posts	Percentage
0	0%
5	50%
10	100%

Exercises

Every week you will have an exercise or series of exercises to complete. These will be done utilizing GitHub, R Studio, R Markdown, etc. All exercises should be submitted either through your own GitHub repository or as a PDF in Blackboard.

Term Project

Starting in Weeks 8 & 9, you will work on a final project that has 3 milestones/submissions, with the final being due in the last two weeks of the course. You will propose a topic and then using research, statistics, and programming address and validate your theory and hypothesis.

Grade and Point Breakdown

Component:	Percentage	Point Value Each Week	Number of Times	Total
Discussion/Participation	20%	20 Points	10 Posts due each week for 12 Weeks	240
Exercises	35%	35 Points	1 submission per week for 12 weeks	420
Term Project	45%	180 Points	3 submissions per term	540
			Total Points	1200

Late Work

Late work is not accepted unless arrangements are made with the instructor for *very* special, unavoidable circumstances. If you do not alert the professor before or shortly after something that will make you late, the chances of special arrangements are much lower. If in doubt, please email as soon as possible.

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.
- 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.