

Course Syllabus Part II

DSC 500 – Introduction to Data Science

3 Credit Hours

Course Resources

Course Texts:

Information and Society by Michael Buckland

ISBN: 978-0-262-53338-6

Data Science by John Kelleher and Brendan Tierney

ISBN: 978-0-262-53543-4

Required Resources:

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

- Access the Internet.
 - Access CyberActive.
 - Collaborate Online via Video and Voice.
 - Collaborate while writing a single document.
 - Submit a Word Document.
 - Use PowerPoint or Adobe Illustrator to create a conference poster.
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Course Schedule

Week	Topic	Discussion	Milestones	Quiz	DS	I&S
1	What is Data Science	1			1	1
2	What are Data?	2		1	2	2
3	What can Data Science Do?	3			3, 5	3
4	Why do people use computers?		1	2		
5	Values Levers	4			6	4
6	Case Study 1 – Suggestions	5		3	4	5
7	Case Study 2 – Spam	6	2			6
8	Case Study 3 – Networks	7		4		7
9	Case Study 4 – Automation	8				8
10	Disability and Data Science	9	3			
11	The Social Life of Data Science	10		5	7	9
12	Final Projects		4			

Course Activities

In this section of the syllabus, I will describe what we will be doing in each of the activities for each week. Specifically, I will be describing your deliverables – those items you need to submit at or before the deadline.

Discussion

Each week, you will be making 2 discussion posts in the specified forums. These two posts are essentially, “What did I find interesting about the reading?” and “What I didn’t understand about the reading but figured out later.”

- “What did I find interesting about the reading?”
 - 500 words or so about what you found interesting about the reading.
 - If your interest brings up other sources, remember to link to them.
- “What I didn’t understand about the reading but figured out later.”
 - Pick something you didn’t ‘get’ about the reading. Go look it up.
 - Post your question, what you did to search for the answer, and what the answer is.
 - These answers should be as long as they need to be but will always be over 250 words.

Responses

Each week, you will be making at least 2 responses to the previously mentioned posts. These responses should be “substantive” which means more than, “Neat!” or “Good job!” They should also not contain jargon or be a post that boils down to you reposting the thing thing you’re commenting on in a different way. At minimum, these should be at least a paragraph. Again, if your response calls on outside sources, remember to link to them.

Quizzes

These quizzes are spread out among the semester and will consist of questions pulling from all of the readings. In addition, there will be at least one applied question. The structure of all the quizzes will be:

- 10 – Multiple Choice questions – 2 points each.
- 5 – Questions ranging from True and False to Matching – 2 points each.
- 1 – 10 point applied question – these will be short answer to essay in their makeup.

Conference Poster Project

Total Points – 200 spread out through the semester in 4 milestones.

The life of a Data Scientist is never just data analysis and programming. Those tasks come at the end or beginning of a particular project. Additionally, the data scientist must also communicate with others within and around the data science world.

Communication can be online or in person. For example, it could be meetings, work groups, online forums, and even Facebook Messenger, Medium.com, or other social media. It can also include poster or paper submission to conferences [in many different areas of academia and industry](#).

Even if you are going in to this field to go specifically into the industry, it’s good to know about the writing process for submission to the various conferences and journals that represent Data Science. These are always attended by industry.

Grade and Point Breakdown

Component:	Percentage	Point Value	Number of Times	Total
Discussion	50%	25 Points	2 Times per week for 10 weeks.	500
Responses	10%	5 points	2 Times per week for 10 weeks.	100
Quizzes	20%	40 Points	5 Quizzes, 1 every other week	200
Poster Project	30%	50 Points	4 Milestones	200
Total Points				1000

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.