Course Syllabus Part II
DSC 540 – Data Preparation
3 Credit Hours

Course Resources

Course Text(s):
Principles of Data Wrangling: Practical Techniques for Data Preparation (1st Edition).
Tye Rattenbury, Joe Hellerstein, Jeffrey Heer, Sean Kandel & Connor Carreras.
O'Reilly Media
ISBN-13: 978-1491938928
ISBN-10: 1491938927

Data Wrangling with Python: Tips and Tools to Make your Life Easier (1st Edition).
Jacqueline Kazil & Katharine Jarmul.
O'Reilly Media
ISBN-13: 978-1491948811
ISBN-10: 1491948817

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.
- Access to GitHub account.
- Python programming environment using PyCharm, Anaconda, and Jupyter Notebook

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Course Schedule

Week	Topic
1	Dataflow Framework & Dynamics of Data Wrangling
2	Python & Data Wrangling
3	Understanding Data Structures/Data Profiling
4	Acquiring and Storing Data
5	Data Transformations
6	Data Clean-Up: Standardizing and Scripting
7	Data Exploration & Analysis
8	Visualizing your Data
9	Web Scraping
10	Data Wrangling with APIs
11	Automation/Data Wrangling Tools
12	Term Project

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. You can find more detail on grading criteria for each category by viewing its detailed rubric.

Written Assignments
Each week, you will be assigned a written assignment aligning to the weekly reading and topics, which is due to the discussion board. This post must be 500 words minimum and contain at least two credible sources. It should be written with an introduction, body and conclusion and cited references.

Exercises
Each week, you will be assigned an exercise or series of exercises based on the weekly topic to complete and submit to the assignment link. These are not group assignments to complete and should be done on your own. However, if you have questions about a specific method or function, you are encouraged to use the discussion board to discuss with your classmates, without completing the assignment together.

Discussion
Each week, you will be making 2 discussion posts in the specified forums. These two posts can either be responses to a fellow classmate or they can be something you found interesting in the reading/homework or something you didn't understand or agree with.

Each post must be a minimum of 250 words and contain at least one credible source. 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 same thing you're commenting on in a different way.

Mid Term & Term Project
Over the course of the term, you will be working on two projects focused on extracting and transforming data from various sources, applying techniques learned from the course.

Grade and Point Breakdown

Component:	Percentage	Point Value Each Week	Number of Times	Total
Discussion Response	25%	50 Points	2 Times per Week (25 points each) for 12 Weeks	600
Written Assignment (Posted to Discussion Board)	20%	40 Points	1 Submission Per Week for 12 Weeks	480
Exercises	20%	40 Points	1 Submission Per Week (worth 40 points each)	480
Mid Term Project	10%	240 Points	1 Submission for Term	240
Term Project	25%	600 Points	1 Submission for Term	600
			Total Points	2400

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 5-10 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.