## Course Syllabus Part II
## DSC 640 – Data Presentation and Visualization
### 3 Credit Hours

**Course Resources**

**Course Text(s):**
*Visualize This: The FlowingData Guide to Design, Visualization, and Statistics (1st Edition).*
Nathan Yau.
Wiley
**ISBN-13:** 978-0470944882
**ISBN-10:** 0470944889

*Storytelling with Data: A Data Visualization Guide for Business Professionals.*
Cole Nussbaumer Knaflic.
Wiley
**ISBN-13:** 978-1119002253
**ISBN-10:** 1119002257

**Optional:**
*Matplotlib for Python Developers.*
Sandro Tosi.
Packt Publishing
**ISBN-13:** 978-1847197900
**ISBN-10:** 1847197906

**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
- Ability to download a reporting tool (free of charge to you): PowerBI/Tableau
- Ability to download a publishing tool

Effective Date of Syllabus: January 7, 2019

**Course Schedule**

| Weeks | Topic |
|---|---|
| 1 & 2 | *Visualize This* Chapters 1-2: Telling Stories with Data & Handling Data<br>*Storytelling with Data* Chapters 1-2: The Importance of Context & Choosing an Effective visual |
| 3 & 4 | *Visualize This* Chapters 3-4: Choosing Tools to Visualize Data & Visualizing Patterns over time<br>*Storytelling with Data* Chapters 3-5: Clutter is your Enemy!, Focus your Audience's Attention, and Think Like a Designer |
| 5 & 6 | *Visualize This* Chapters 5: Visualizing Proportions<br>*Storytelling with Data* Chapters 6-7: Dissecting Model Visuals & Lessons in Storytelling |
| 7 & 8 | *Visualize This* Chapter 6: Visualizing Relationships<br>*Storytelling with Data* Chapters 8-9: Pulling it all Together & Case Studies |
| 9 & 10 | *Visualize This* Chapter 7-8: Spotting Differences and Visualizing Spatial Relationships<br>*Storytelling with Data* Chapter 10: Final Thoughts |
| 11 & 12 | *Visualize This* Chapter 9: Designing with a Purpose |

**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**
Every two weeks, you will be assigned two written assignments 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**
Every two weeks, 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 or Slack channel to discuss with your classmates, without completing the assignment together.

**Discussion**
Every two week, you will be making 4 discussion posts in the specified forums. These four 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.

**Course Project**

Over the course of the term, you will be working on five small projects focused on various presentation and visualization methods. You will be given a scenario, then based on the information provided determine the best visualizations to present the information. During the course you will be working on submitting the following:

- Dashboard
- Executive Summary
- Blog Post
- Infographic
- Video Presentation

**Grade and Point Breakdown**

| Component: | Percentage | Point Value Each Week | Number of Times | Total |
|---|---|---|---|---|
| Discussion Response | 25% | 100 Points | 4 Times per 2 Weeks (25 points each) | 600 |
| Written Assignment (Posted to Discussion Board) | 20% | 80 Points | 2 Submissions Per 2 Weeks (40 points each) | 480 |
| Exercises | 20% | 80 Points | 1 Submission Per 2 Weeks | 480 |
| Projects | 35% | 168 Points | 5 Submissions for Term (worth 168 points each submission) | 840 |
| | | | 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.