

DAC 111, - Spring 2018 Syllabus

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DAC 111 - Programming for Data Analytics

UWSP Course Catalog Description: In-depth usage of some of the more specialized packages for Python used in Data Analytics. The concepts of how different fields or functions make use of data analytics, and the stages of analyzing data; learn to interpret data, communicate insights, and leverage data. In-depth usage of tools and ideas of the data analytics toolsets. Deeper data analysis will be introduced using additional statistics and scientific packages.

Class Meetings: Tu, Th 12:30-13:45, SCI B348.

Textbooks/Course Materials: In class lectures with additional reading provided below.

- McKinney, Wes (2012), Python for Data Analysis, O'Reilly Media, First Edition
- Stanton, J.M. (2012). Introduction to Data Science, Third Edition. Available at: <http://surface.syr.edu/istpub/165/>
- Peng, R.D. & Matsui, E. (2016) The Art of Data Science: A Guide for Anyone Who Works With Data. Available at: <https://leanpub.com/artofdatascience>.
- Other references and resources or links to resources will be given during the course.

Learning Outcomes: (Some skills you will acquire.)

- Data wrangling skills to import and clean data
- Data analysis using 3rd party external packages
- Visualizations and communication of results

Homework: Further information will be given in class.

Help: Ask questions as they arise. Come to see me before or after class, stop by during my office hours, or check to see if I am available at other times.

Policies: UW-Stevens Point values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, a set of expectations for all students and instructors have been developed. This set of expectations is known as the Rights and Responsibilities document, and it is intended to help establish a positive living and learning environment at UWSP. Check here for more information: <http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>

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If you have a disability and require classroom and/or exam accommodations, please register with the Disability and Assistive Technology Center and then contact me at the beginning of the course. I am happy to help in any way that I can. For more information, please visit the Disability and Assistive Technology Center, located on the 6th floor of the Learning Re-source Center (the Library). You can also find more information here: <http://www4.uwsp.edu/special/disability/>

Grading:

Homework 20% / Quizzes 20%	40%
Class Participation	10%
Midterm Exam	20%
Final Exam/Project (Comprehensive)	30%

percentage	at least this grade
93%	A
90%	A-
87%	B+
83%	B
80%	B-
77%	C+
73%	C
70%	C-
67%	D+
60%	D

Methods of Instruction

Lectures and in-class discussions will be the main tools of instruction. Homework problems will help students absorb the material and get to practice in their free time.

Credit Requirements

Students must complete all homework assignments and pass all exams. They also must receive a passing grade on the final exam to receive a passing grade in the course.

I reserve the right to exercise discretion in raising a student's grade if the final weighted average does not appear to reflect the quality of a student's work (for example, because of one low exam score early in the course). I will not use discretionary judgments to lower a student's final grade. The weighting of the scores may change if it results in a higher percentage for the student, e.g. drop lowest quiz. Do not count on this as it may not happen.

Extra credit opportunities may be given throughout the semester. You should not count on it though since there may be none.

Participation points come from being in attendance and being engaged in discussion, answering questions, working in group work in class, working on projects in class, etc.

Approximate Exams Dates (Changes will be announced in class): Week 5 and Week 10.

Final Exam: 5/16/2018, Wednesday, 10:15AM - 12:15PM, Science Building (SCI) B348 (Changes will be announced in class)