STAT-19000-01　　　　Data Mine II　　　　Spring 2022

1 Credit Hour　　Spring 2022 W 12 – 12:50 p.m. KT 218

OPEN LAB/ IN-PERSON HELP before and after class: W 11 a.m. – noon, 1 p.m. – 2 p.m., KT 218

Instructor:　Dr. Daniel Yorgov, KT 277　**Virtual Office:** https://purdue.webex.com/meet/dyorgov
Phone:　　　(260) 481-6222　　　　　**Math office:**　(260) 481-6821
E-Mail:　　yorgovd@pfw.edu　(the best way to reach me is via email). Please check your school email at least daily for announcements and updates.

Course Design: The specific topics covered in this course were selected by and course materials were **designed by Dr. Y. Deng** (currently on a sabbatical) and modified by me.

Websites:

1. **Brightspace** at purdue.brightspace.com (grades and assignment submissions).
2. My class **webpage** at users.pfw.edu/yorgovd/DM2 (I will post resources there).
3. **DataCamp** at www.datacamp.com (some topics will be assigned; to help you with your learning journey, you could also explore more than available 325 courses on almost anything data science related).
4. Purdue West Lafayette **Scholar computing cluster** at www.rcac.purdue.edu/compute/scholar (some of our computations will be done online there). Make sure your Purdue WL career account is active (check your email and/or contact PFW IT support for assistance).

Virtual Office Hours: TR 3:00 - 4:00 p.m., or by appointment at https://purdue.webex.com/meet/dyorgov

Teaching Assistant: Mr. Derek Brown, browdt02@pfw.edu, is the teaching assistant for this class.

Teaching Assistant Virtual Office Hours: W 6:30 – 7:30 p.m., R 9:00 – 10:00 a.m. at https://purdue-edu.zoom.us/j/5987096307.

This class is supported by DataCamp, the most intuitive learning platform for data science and analytics. Learn any time, anywhere and become an expert in R, Python, SQL, and more. DataCamp offers 325+ courses by expert instructors on topics such as importing data, data visualization, and machine learning.

Register for the Free DataCamp Access:

As part of this class, you have **free access** to all paid courses in DataCamp for more than five months. You must use your pfw.edu email to register at:
https://www.datacamp.com/groups/shared_links/ff4588649a0860e18b590309e50997c525d39c50ef213587c89e017d54cc5ca6
(please do not share this link as I have limited complimentary subscription slots secured).

Prerequisites: None. Desire to learn some data science skills with the Python programming language is expected. No previous programming experience is required. If you have not had a statistics class, concurrent enrollment in such a class is recommended but not required.

Required Materials:

Please bring a laptop computer to each class.

Course Description: This course goal is to introduce you to data science with Python, an interpreted, object-oriented, high-level programming language. Python is widely used in data science and statistics, machine learning, and data analytics. This course is intended to be a hands-on introduction to Python and data analysis, including concepts like data structures, data manipulation, statistics and probability functions, and basic programming constructs. We will illustrate the workflow including data cleaning, exploratory data analyses, producing graphics, fitting a simple statistical model, and assessing the results.

Grading Policy:

LABS: 90%, ATTENDANCE: 10% Based on your percentage grade, the letter grade will be assigned as follows: A: 90 – 100, B+: 85 – 89, B: 80 – 84 C+: 75 –79, C: 70 – 74, D+: 65 – 69, D: 60 – 64. F: < 60

YOU RECEIVE THE GRADE YOU <u>EARN</u>, NOT THE GRADE YOU NEED!

Weekly Homework Labs:

There will be 14 lab assignments and they will be assigned after relevant topics are covered in class. Each new assignment will be available Wednesday evening (by 7 p.m.) and will be due at Brightspace by noon on the second Thursday after it was assigned (after eight days). Due dates and details will be provided with each assignment too. You should plan to spend 2-3 hours per week working on the labs, going over related DataCamp topics, seeking help during open labs and office hours.
The three lowest lab grades will be dropped. Homework will account for 50% (10% each) of your percentage grade.

Late Assignments: Since we are dropping the lowest 3 project grades, and you have 8 days to work on each lab, late work will typically not be accepted.

Attendance: You must attend at least 13 classes to earn the full attendance credit, your attendance grade will be reduced proportionally if you attend less classes. Please email Mr. Brown with documentation for any excused absences.

Other Concerns: You are expected to read and follow all the information in the current Purdue Fort Wayne Student Handbook and Planner. In particular, be familiar with the Purdue Fort Wayne Code of Student Rights, Responsibilities, and Conduct. A copy can be found on the website http://www.pfw.edu/committees/senate/code/.

Special Needs: Purdue Fort Wayne is committed to providing reasonable accommodation and access to programs and services to persons with disabilities. If you have a disability and need assistance, special arrangements can be made to accommodate most needs. Contact the Director of Services for Students with Disabilities (Walb Union, Room 113, telephone number 481-6657) as soon as possible to work out the details. Once the Director has provided you with a letter attesting to your needs for modification, bring the letter to me. For more information, please visit the web site for Services for Students with Disabilities (SSD) and refer to the *SSD Student Handbook*.

Important Dates: Excerpt from Spring Academic Calendar (http://www.pfw.edu/academics/calendar/)

Jan. 16	Last Day for Full Refund	March 18	Last Day to Withdraw (with W) online
March 7-13	Spring Break	May 2 – May 8	Final Exam Week

COVID Considerations

The PFW website with updates, regulations, and resources:
https://www.pfw.edu/microsites/pfw-prepared/

Importantly:

- Currently students, faculty, staff, and visitors must wear a face mask while indoors on campus, regardless of their vaccination status. Please **wear your mask properly** (covering your mouth and nose). We are counting on you to do so!

- Please sit at the **same spot** each class session and comply with the 6-feet distance guidance to the best of your ability when entering and exiting the classroom.

- I quarantine any hard copies that I distribute for at least 24 hours.