

Fall 2026 MTH 3350 Data Science Portfolio I
Mondays, 11:45-1:25 in DSC 257
Syllabus and Expectations

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In this course, you will propose your three-course sequence in an applied field and learn how to assemble your Data Science Portfolio. You may even begin assembling your portfolio. The information below is taken from the proposal for the data science major. **YOU MAY NOT USE AI TO WRITE THIS PROPOSAL!**

With the guidance of a mentor, students will self-design a three-course concentration in which data analysis is used in a significant way. One course that provides background content may be part of the concentration. This is consistent with our focus on studying data science in context. All self-designed concentrations must be approved by the Mathematics Department Chair, in consultation with the Data Science Working Group and, if necessary, other department chairs. We provide some samples as examples of what such concentrations could contain.

Concentration in Geoinformatics:

GEO 1610 Introduction to Geographic Information Science: Mapping Your World
GEO 2610 Advanced Geographic Information Science and Analytical Cartography
GEO 4600 Applied Projects in Geographic Information Science

Concentration in Environmental Statistics:

ENV 1000 Introduction to Environmental Science
ENV 2100 Quantitative Environmental Analysis
ENV 2610 Case Studies in Environmental Science

Concentration in Business Analytics

FIN 3210 Corporate Finance (requires ACC 2010)
MGT 3100 Introduction to Business Analytics
MKT 4210 Marketing Research (requires MKT 3130)

Concentration in Economic Quantitative Methods and Policy Analysis

ECN 2510: Intermediate Microeconomics (requires ECN 1010 or 1030)
ECN 3340: Introduction to Econometrics
An economics elective course 3000 or above

EVALUATION

Proposal Completion and Evaluation	80%
Participation and Effort	20%
TOTAL	100%

TEXT: This class requires no text.

NOTES: I am looking forward to getting to know each one of you this semester. I believe we will have an interesting and dynamic learning experience. By the end of this course, I hope you know exactly what is expected of you as you work to complete your Data Science Major.

Title IX Statement: You can find resources on the Carthage website at www.carthage.edu/title-ix.

Mission Statement: *Seeking Truth, Building Strength, Inspiring Service - Together*

Due Dates: These items need to be approved by my before you submit them!

Due 9/14: Make a copy of the template in your Google drive and share that document with me. Choose a topic for your concentration. Enter that topic into the template as the title and submit the document through Brightspace.

Due 9/28: Choose the three courses in your concentration, and at least begin the process of making sure that the courses you need will be offered when you can take them. You should also have a solid draft of your introduction. Type all of this into your template and submit the document through Brightspace.,

Due 10/5: Course descriptions and rationale for each course should be in your document. Submit it through Brightspace.

Due 11/16: Complete proposal due through Brightspace.

The following information is provided by Carthage College. I include this at their request.

Student Support Resources

Learning Accessibility Service Information

Carthage College strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers due to your particular circumstances (including mental health, learning disorders, and chronic medical conditions), please let me know immediately so we can discuss options privately. To establish reasonable accommodations, you must register with the Director of Learning Accessibility Services, Warren Wolchuk (wwolchuk@carthage.edu).

Health and Counseling

The Health and Counseling Center (HCC) addresses student physical, mental, and emotional well-being. All services, provided by experienced professionals, are free and confidential to currently enrolled, full-time undergraduate students. Students must call or visit the HCC to schedule an appointment. Health services are available by walk-in or appointment from 8:30am to 1pm and 2pm to 4:00pm. Counseling walk-in sessions are available Monday through Friday from 11:30am to 1:00pm. Last walk-in appointment begins 30 minutes before the end of walk in hours. TWC, first floor (behind mailboxes), | Website | 262-551-5710. Mon-Fri 8:30 am to 1:00 pm and 2:00 pm to 4:00 pm. Students can visit Uwill to access teletherapy services. (Updated Aug 5)

Writing Center

The Brainard Writing Center is a free resource for student writers. The center is staffed by undergraduate Writing Fellows who have been recommended by Carthage faculty and trained to work with other students on their writing. They can work with you at all stages of the writing process, including understanding the assignment, brainstorming ideas, drafting, revising, and proofreading. This semester, they are offering in-person, Zoom live virtual, and written feedback appointments. Students can schedule an appointment up to seven days in advance on WC Online. For more information, visit carthage.edu/writing-center.

Peer Tutoring

Peer Tutoring is available to assist you with any aspect of the class, including understanding readings, preparing for quizzes, studying for exams, and developing effective study habits. This free campus resource is here to help everyone maximize their academic potential. You can see available tutors and make an appointment up to seven days in advance on WC Online. For more information, visit carthage.edu/tutoring.

Student-Athletes

If you are a student athlete, you should inform me of this status at the start of the semester by providing me with the Coach's Letter that you received (this letter should name your head coach and the competition dates, and should have been provided to you at the first meeting). In addition to sharing this information at the start of the semester, you need to notify me of any class days to be missed due to a Carthage Athletics-sponsored event in which you are participating. You should notify me in advance of each upcoming contest. (For example, if you know you are traveling with the team on Friday, please let me know several days in advance). You will need to make up any missed lectures, assignments, and/or exams. Some work that can happen only during class time, such as discussion points, is not possible to make up. Students are encouraged

to be in communication often; excessive absences will necessitate conversations with the instructor and the associate athletic director, and may impact your grade. Please note: student athletes cannot miss class to attend a practice session or athletic training appointment.

Respect and Equity Statement

One of this course's priorities is to create an environment where everyone feels safe and welcome. All students are encouraged to participate, speak up, and express their viewpoints in a manner that is in keeping with the principles we seek to maintain as a community: mutual respect, tolerance of difference, kindness, and compassion. Please be considerate of others during class and in online communications. Carthage College is committed to equal access to programs, facilities, admission, and employment for all persons. It is the policy of the college to maintain an environment free of harassment and free of discrimination against any person because of actual or perceived age, race, color, ancestry, national origin, religion, creed, service in the uniformed services (as defined in state and federal law), veteran status, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, gender identity, gender expression, genetic information or political ideas. Discriminatory conduct and harassment, as well as sexual misconduct and relationship violence, violate the dignity of individuals and impede the realization of the college's educational mission, and will not be tolerated.