

# Data Science Capstone

## MATH 490

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### Course Description

Students will work independently to provide a service in the form of a data product to a local business, researcher, or community member. Students provide status reports at weekly meetings, and present their finished project to a group of peers at the end of the semester in an appropriate venue such as at an undergraduate seminar series or poster symposium.

### Course Objectives

Students will generate a public facing data product that can be used to show their skills to potential employers. Students will experience the cycle of innovation, critique and revision from peers and external stakeholders. Projects will include: formulation of a question to be answered by the data; collection, cleaning and processing of data; choosing and applying a suitable model and/or analytic method to the problem; and communicating the results to a non-technical audience.

### Course Prerequisites

MATH 485, Senior standing, approved project, enrollment in the Data Science Certificate Program.

### Course Format

This is not a lecture-based course. There will be weekly meetings in small groups to assess progress and receive feedback. Students are expected to work independently for the most part, with gentle reminders of upcoming milestones and status reports. When full class meetings are called they will be during the officially scheduled course time and classroom. It is every student's responsibility to check the course website weekly for schedule or requirements updates.

### Major Requirements

- Proposal
- Midterm status update
- Preliminary results
- Final Presentations (Exhibition Poster and 15-20 minute presentation to stakeholders)

### Additional performance and evaluation criteria

- Participation: attendance and active participation at all scheduled meetings and events.
- Reliability: Meeting deadlines, timely and effective communication
- Progress: Demonstrated at weekly meetings
- Quality: Of the project, supplemental materials and reports
- Professionalism: in presentations, communications and all interactions
- Collaboration: both with the project sponsor but also within the class as demonstrated by giving and receiving peer feedback

## Grade Evaluation

Grade	Expectations
A to A-	Superior (very impressive, one of the best in class)
B+ to B-	Good work
C+ to C-	Minimally Acceptable or Mediocre
C- to D	Insufficient effort/results
F	Unacceptable work / weak effort or results

Omission of a **Major Requirement** will lower your grade by a full letter grade for each omission (or unacceptable submission).

Assessment of **Additional Performance & Evaluation Factors** can raise or lower your grade by up to a full letter grade. In other words, if you participate and perform as expected, your project grade should not be affected. However, if you underperform (e.g., miss meetings, submit sloppy work, etc.), your grade will be reduced. If you really shine, your grade will be bumped up.

## Americans with Disabilities Act

If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Please also contact Accessibility Resource Center (ARC) as they are the designated department responsible for approving and coordinating reasonable accommodations and services for students with disabilities. ARC will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations.

Accessibility Resource Center  
530-898-5959  
Student Services Center 170  
arcdept@csuchico.edu

## Confidentiality and Mandatory Reporting

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. I may also have a mandatory reporting responsibility related to my role. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep information you share private to the greatest extent possible. However, I am required to share information regarding sexual misconduct with the University. You may speak to someone confidentially by contacting the Counseling and Wellness Center (898-6345) or Safe Place (898-3030). Information on campus reporting obligations and other Title IX related resources are available here: <http://www.csuchico.edu/title-ix>.