

# MUSA Capstone Introduction

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# Welcome!

- Intro
- Syllabus (30 min)
- *10 minute break*
- Breakouts (45 min)
- *10 minute break*
- Presentation: The Turnout Tracker (60 min)

# The Capstone Project

The final project is an . . .

- independent study
- on a substantive question
- using GIS data

*I'm here to help, but ultimately you are responsible for driving and executing your project.*

## Possible project deliverables

- Research paper on a topical question
- Research paper on GIS methodology
- Dashboard\*
- GIS tool

# Examples from past years

- Spatial analysis of food safety violations in Philadelphia
- Spatial methods for heritage preservation
- Latitudinal shifts of grass plant functional types
- Evaluating two-seat rides for SEPTA

The screenshot shows a GitHub repository page for 'CPLN-680-Spring-2022 / Class-Resources'. The repository is public and has 1 pull request, 0 issues, 0 forks, and 1 star. The main branch is selected. The file 'Clark,Rashon.pdf' is open, showing a document titled 'An Analysis of the Spatial Qualities of Food Safety Violations in Philadelphia' by Rashon Clark. The document has 2,02 MB and is available for download. The document content includes a table of contents with sections: 1 Introduction, 2 Methodology, and 3 Conclusion: Problems and Future Possibilities. The introduction text is visible, starting with 'Although once mundane and bureaucratic, food safety inspections have now entered the mainstream American psyche, becoming a part of reality television, newspaper headlines, and restaurant rating systems. In a similar fashion, data on food safety has become'.

Search or jump to... Pull requests Issues Marketplace Explore

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main Class-Resources / resources / examples / Clark,Rashon.pdf Go to file

jtannen Added examples Latest commit 2 days ago History

1 contributor

2,02 MB Download

**1 Introduction**  
2 Methodology  
3 Conclusion: Problems and Future Possibilities

## An Analysis of the Spatial Qualities of Food Safety Violations in Philadelphia

Rashon Clark

### 1 Introduction

Although once mundane and bureaucratic, food safety inspections have now entered the mainstream American psyche, becoming a part of reality television, newspaper headlines, and restaurant rating systems. In a similar fashion, data on food safety has become

# Project components

- Final deliverable.
- Presentation to the class.
- Complete GitHub repository\* with raw data, processed data, outputs.

This course will use GitHub as its primary site.

- <https://github.com/CPLN-680-Spring-2022/Class-Resources>
- Final project submitted as a GitHub Repo.

*This is my first time using GitHub to teach, so will be flexible.*

- Working groups on projects
- Student presentations
- External speakers, “Anatomy of a project”
- Lectures on Spatial Methods, Better Engineering for Researchers



## A note on technical requirements

My approach to programming is practical.

- You only ever need “good enough,” and there will always be someone more expert.
- You will see enormous gains (errors, iteration speed) by improving your engineering 20%.
- Push yourself in reasonable directions for final project.
- The most important thing is to overcome  $0 \rightarrow 1$ , teach you how to learn for yourself.

Do you plan on using. . .

- ESRI
- R
- Python
- Something else

What is your familiarity with. . .

- Git & GitHub
- Command line
- Spatial Econometric methodologies (e.g. “autoregression”)

What other GIS topics would you like to learn?

How confident are you in your idea for project?

1 - Not confident at all.

5 - I know exactly what I want to do.

## A note on the calendar

The calendar is aggressive at the beginning to discover blockers.

*NOTE: This is the first time I'm teaching this course, so what follows may be tweaked based on how things go. I promise one week's notice before any changes.*

# Calendar

Date	Assignment Due (Tentative)
Jan 14	Initial Topic Brainstorm
Jan 21	Project Proposal 0
Jan 28	GitHub Repo
Feb 4	Data Summary Analysis, Presentations A
Feb 11	Project Proposal 1, Presentations B
Feb 25	Mid-point Work In Progress Report, Presentations A
March 4	Feedback for 2 peer projects. Presentations B
March 11	<i>Spring Break</i>
March 25	Peer Code Review
April 15	Final Presentation (1)
April 22	Final Presentation (2)
April 29	<i>No Class</i> , Final Projects due

**syllabus.Rmd** will be source of truth.

TBD how to submit assignments; either GitHub, Canvas, or email.

Office Hours: Wednesday 6-8pm, by appointment

Sign up on Calendly: <https://calendly.com/jtannen/office-hours>



- Final Project 50%
- Final Presentation 25%
- Assignments & Participation 25%

## Next Week

- Due: Project Proposal 0
- In class: GitHub

# Questions?

In groups of three. . .

- 15 min: Overview your projects
  - What is the question you're trying to answer?
  - What data sources are available?
  - What is your most important next step?
- In 15 min, come back to this room.