



# CPSS340: Infrastructure and Society

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CPSS340

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## Course Description:

The course focuses on the study of infrastructure, diving into the social and political aspects of different systems, including roads, buildings, communication systems, water delivery systems, sanitation systems, energy systems, etc. CPSS is taught by Dr. David Tomblin in Cumberland Hall, and focuses mostly on infrastructure in the United States. The highlight of the semester is a project in which we choose a community we care about, researching and assessing a specific issue with infrastructure in our chosen community, then create a reimagined version of our chosen community.



UMD's Stormwater Management and Maintenance Inspector, Michael Carmichael, gave us a tour of the water infrastructure around UMD, including Cumberland Hall's green roof displayed above. Image from SustainableUMD (<https://sustainability.umd.edu/topics/water/water-initiatives>)



I am shown standing to show the width of a wheelchair accessibility ramp in front of Van Munching Hall. My aim was to highlight how the ramp was too narrow to comfortably accommodate a wheelchair user, and the photo was submitted for one of the journal assignments we had for the class.

## Activities:

- Assignments that helped us identify infrastructure in our local community
- Tour campus and learn about infrastructure at UMD, such as green roofs and other water infrastructure
- In class activities allowed us to think about infrastructure in ways beyond what is initially apparent, analyzing infrastructure through the lens of Socio-Technical Systems Postures
- Guest speakers would talk to us about areas of infrastructure they specialize in: drinking water, electrical systems, water management

## Impact:

Taking this course has built a tool for assessing infrastructure around me in my day to day life. The material we have gone over in class has opened my eyes and sparked thoughts about how infrastructure in my hometown shapes the community itself. I feel that this course has given me the ability to connect issues within a community to its infrastructure, allowing for targeted actions to be taken in order to fix injustices within a community.

## Final Project:

For our semester project we assess a community of our choice, and focus on a specific infrastructure issue in this community. The course material allowed us to develop an assessment tool throughout the semester, though considering things such as social justice, human capabilities, community stakeholders, infrastructure's connection to our senses, etc. I chose to focus on the public transportation system in my hometown of Frederick, and the issues like a lack of access and constant delays, and how individuals in low income communities are unfairly impacted by this system. My research is ongoing, but my reimagined community will include a city funded public transit system, which will be spread wider across Frederick, and reach communities further from downtown which don't currently have access to public transportation.



During our tour of UMD campus' water infrastructure, we visited the "Neutral Buoyancy Pond" pictured above. Mr. Carmichael taught us about the ponds intended purpose and connection to other water infrastructure on campus.

## Acknowledgments:

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