PADM 5700: Urban Infrastructure Seminar
Wednesdays, 2 - 5 PM
BLB 090

Instructor Contact
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Phone Number: (940) 369-8424

Communication Expectations: The best way to correspond with me is by email. If you expect to miss a class, have difficulty accessing the course materials or would like to schedule a meeting outside of office hours you should email me using the address provided above.

Course Description
Contemporary urban regions are supported by a diverse range of infrastructure networks related to energy, drinking water, sewage, transportation, and communications. Traditionally defined by their technical and economic characteristics, these networks also have significant spatial, political, and cultural implications that are less examined. The upgrading and reimagining of urban infrastructure networks is central to sustainability, resiliency, economic growth, and enhanced quality of life. Yet much remains unclear about the effectiveness and efficacy of varied approaches to planning, managing, funding, and maintaining infrastructural networks for 21st century challenges. Emerging scholarship supports a multi-faceted understanding of infrastructure as a combination of institutions, individuals, behaviors, expectations, and culture in addition to its physical manifestations.

This course offers graduate students an opportunity to examine the evolution of urban infrastructure using theories and case studies drawn from urban history, science and technology studies, anthropology, geography, planning and architecture. A founding premise of the seminar is that it is useful to read across disciplines, especially when they are interested in some of the same substantive questions. For our purpose in this course, such questions include: How has urban infrastructure evolved from the 19th century to the present? What are the relational and spatial aspects of urban infrastructure development?

Course Structure
The first half of the course introduces theoretical ideas about urban infrastructure and applies these to interpret the historical evolution of infrastructural networks. In the second half of the course, we use case studies to illustrate how existing and emerging theories about infrastructure manifest themselves in physical and political space.

This is a graduate level seminar that uses active discussions and interaction. Our work during the semester will consist largely of reading and preparing for class, participating in class discussions, and then reflecting on those discussions. We read and we talk about the readings together to help each other understand what it all means; my job as an instructor is to guide discussions. Thinking
out loud is not only fine, but also (within reason) encouraged. I have for the most part kept the reading to 50 to 75 pages per week.

**Course Objectives**

By the end of this course, students will be able to:

1. Describe the relationship between infrastructure and economic growth, environmental sustainability, resiliency, and social equity
2. Evaluate how stakeholders finance, manage, and maintain urban infrastructure
3. Describe the changing definitions and purposes of infrastructure over time
4. Evaluate emerging innovations in infrastructure policy
5. Assess the challenges for both developing and developed countries to devise new strategies, new technologies, new business models, and new financing techniques.

**Required Readings**

You do not need to purchase a textbook for this course. All materials are available open source or through Canvas.

**Required Technology:**

Microsoft Office Suite (Word, Excel, PowerPoint) or equivalent

**Course Philosophy: Inclusion and Diversity**

Learning is a social activity. We all (students and instructors) share responsibility for the teaching and learning that we accomplish in each class. Active participation requires regular class attendance, fully completing and understanding assigned readings in advance of each class session and engaging in discussion by listening and speaking with others in a respectful and constructive exchange of ideas.

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

**Department of Public Administration: Anti-bias Statement**

The Department of Public Administration believes in the fundamental principles of life, liberty, equality, equity, and in doing good to all people as we serve our students and the public interest.

- We believe in the importance of diversity and inclusion
- We believe in fairness and equity for all faculty and students in and out of class
- We believe in mutual respect and civility for all students and faculty
- We believe that faculty and students have a right to a redress of grievances
- We believe that students and faculty should be actively engaged in good works
Course Assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>% of Grade</th>
<th>Due Date</th>
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</thead>
<tbody>
<tr>
<td>Attendance and Participation</td>
<td>10%</td>
<td>Varied</td>
</tr>
<tr>
<td>Reading Reflections (7)</td>
<td>40%</td>
<td>Weeks 2 - 8</td>
</tr>
<tr>
<td>Infrastructure Case Study</td>
<td>15%</td>
<td>Week 11, 12, or 14</td>
</tr>
<tr>
<td>Final Paper</td>
<td>35%</td>
<td>December 7</td>
</tr>
<tr>
<td>Paper Proposal</td>
<td>10%</td>
<td>October 29</td>
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**In-Class Activities and Participation (10%).** This is a graduate level seminar that relies heavily on in-class discussion. To succeed in this class, you need to attend all class sessions, read assigned materials before attending class and actively participate in discussions. This portion of your grade will be determined by your engagement with class material and participation in class discussions.

**Reading Reflections (40%).** Prepare seven “reflective memos” on the week’s required readings. We will divide the class into four working groups. Each week, working groups will produce a 2-page (500 to 1000 word) memo to the discussion board. Reading memos are due by 2PM on Tuesdays (24 hours before class). Each memo should summarize the most important points of the assigned readings and provide at least three questions about the week's topic. Questions can be related to understanding a specific reading, probe connections with course materials from other weeks and/or identify critical points for discussion. Only one group member will need to post the group memo and all group members will receive the same grade for each memo.

All students are expected to (1) contribute actively to their group’s memo and (2) read other groups memos prior to attending class. I will feel *very* free to ask people about the memos. My reasoning in giving this assignment is the following. It is important to think about and engage with the material before you come to class. Talking with someone is a good way to do that. You can meet virtually or in person; I suggest at least one hour each week. What I do not want is for you to just take turns (though I am not naïve; I realize that individuals will flake occasionally and ask to be covered for in exchange for doing more of the week at some future date).

**Infrastructure Case Study (15%).** During the last half of the semester, each student will present a case study on an infrastructure-related topic to the class. This assignment includes a short presentation and an in-class activity and/or structured discussion. The case studies should identify a specific project or problem related to urban infrastructure, provide sufficient background, and present two to three discussion questions to help classmates connect the case to course materials. This assignment can be done alone, or in pairs. Students are encouraged to talk with the professor and their classmates about potential cases and issues as the semester progresses.

**Final Paper (35%).** For your final paper you should utilize the course materials and other academic and scientific resources to prepare a research or evaluation of an infrastructural solution, implementation strategy or policy initiative of your choosing. Students will submit a proposal for their paper in October and are encouraged to build off their case study project, as applicable. More details will be provided later in the semester.
## Course Schedule and Readings

Readings are completed **BEFORE** class sessions; You should come prepared to discuss and ask questions.

<table>
<thead>
<tr>
<th>Week</th>
<th>Schedule</th>
<th>Readings, Assignments and Activities</th>
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| 1    | Wed 8/31: Introduction to Urban Infrastructure | Course Expectations  
Cities Infrastructure: A Report on Sustainability (KPMG) |
| 2    | Wed 9/7: Infrastructure + Urbanization | Malekpour et al. (2015)  
Smith, p. 119 – 149  
Schivelbusch, p. 1 - 44 |
| 3    | Wed 9/14: Modernist Infrastructural Ideal | Scott, p. 53 – 83  
Berman, 290 - 312 |
| 5    | Wed 9/28: Social Infrastructure | Klinenberg, p. 1 – 53  
Sampson, p. 237 – 260  
Wear (2016)  
Video: Pruitt Igoe Myth |
| 6    | Wed 10/5: Infrastructural Optimism | Samuels, p. 14 - 51 |
| 7    | Wed 10/12: Institutions + Governance | Bogart (2022) |
| 8    | Wed 10/19: Financing | Bayliss et al. (2021) |
Mascharenhas et al. (2021)  
Paper Proposal Due (10/29) |
| 10   | Wed 11/2: Reading Catch up Week | Final Paper Check-Ins  
Virtual Class Meetings |
| 11   | Wed 11/9: Stormwater + Blue-Green Infrastructure: Case Study | Materials on Canvas |
| 12   | Wed 11/16: Smart Cities + Telecommunications: Case Study | Materials on Canvas |
| 13   | Wed 11/23: No Class | No Class Thanksgiving |
| 14   | Wed 11/30: Infrastructural Megaprojects: Case Study | Materials On Canvas |
| 15   | Wed 12/7: Final Paper Due | Final Paper Due |

## Technical Requirements & Skills

### Minimum Technology Requirements

To succeed in this course students should have access to a computer with Microsoft Excel or a similar spreadsheet software and be comfortable using Canvas. Students should also be familiar with presentation and graphics programs (i.e. PowerPoint) and the internet.

### Netiquette

Netiquette, or online etiquette, refers to the way students are expected to interact with each other and with their instructors online. Here are some general guidelines:

- Treat your instructor and classmates with respect in email or any other communication.
- Use clear and concise language.
- All communication should have correct spelling and grammar (this includes discussion boards).
- Avoid slang terms such as “wassup?” and texting abbreviations such as “u” instead of “you.”
• Use standard fonts such as Arial, Calibri or Times new Roman in a size 10- or 12-point font
• Avoid using the caps lock feature AS IT CAN BE INTERPRETTED AS YELLING.

Assignment Policy
Assignment due dates are listed in the syllabus and posted on Canvas. For each assignment, you can find instructions and additional materials on Canvas. All assignments should be submitted via Canvas, unless indicated otherwise.

The University is committed to providing a reliable online course system to all users. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Late Work
Late assignments will not be accepted for credit. If unexpected circumstances prevent assignment completion on time (e.g. hospitalization, emergency travel), email the instructor as soon as possible to make alternative due date arrangements.

Attendance Policy
Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. Please send me an email if you are unable to attend a class meeting because you are ill, in mindfulness of the health and safety of everyone in our community.

Syllabus Change Policy
We reserve the right to make changes to the syllabus, including augmenting readings and adding activities. Any changes for a specific class meeting will be posted at least one week before the class, with notifications sent out to students via email and Canvas.

Academic Integrity Policy
According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

ADA Policy
UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website (https://disability.unt.edu/).
Emergency Notification & Procedures
UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Acceptable Student Behavior
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University’s expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT’s Code of Student Conduct (https://deanofstudents.unt.edu/conduct) to learn more.

Access to Information - Eagle Connect
Students’ access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail Eagle Connect (https://it.unt.edu/eagleconnect).

Sexual Assault Prevention
UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.
Getting Help

Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

UIT Help Desk: http://www.unt.edu/helpdesk/index.htm
Email: helpdesk@unt.edu
Phone: 940-565-2324
In Person: Sage Hall, Room 130
Walk-In Availability: 8am-9pm
Telephone Availability:
- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm
Laptop Checkout: 8am-7pm

For additional support, visit Canvas Technical Help (https://community.canvaslms.com/docs/DOC-10554-4212710328)

Student Support Services
- Registrar (https://registrar.unt.edu/registration)
- Financial Aid (https://financialaid.unt.edu/
- Student Legal Services (https://studentaffairs.unt.edu/student-legal-services)
- Career Center (https://studentaffairs.unt.edu/career-center)
- Multicultural Center (https://edo.unt.edu/multicultural-center)
- Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
- Student Affairs Care Team (https://studentaffairs.unt.edu/care)
- Student Health and Wellness Center (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- Pride Alliance (https://edo.unt.edu/pridealliance)

Academic Support Services
- Academic Resource Center (https://clear.unt.edu/canvas/student-resources)
- Academic Success Center (https://success.unt.edu/asc)
- UNT Libraries (https://library.unt.edu/)
- Writing Lab (http://writingcenter.unt.edu/)
- MathLab (https://math.unt.edu/mathlab)