

STS 325-H04: Science, Technology, and Urban Transformation

Syllabus

Instructor: Emily Tancredi-Brice Agbenyega

Office: Honors Hall 229

Office Hours: Mondays 2-4PM and by appointment

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Class meeting times: MW 11:30 AM -1:00 PM

Course Description

This course will explore the transformative role of STEAM in urban environments, with a focus on Newark, NJ. Students will learn how these disciplines can address urban challenges and contribute to sustainable urban development. Specifically, students will engage with local community partners to develop and implement STEAM-based solutions in an urban setting. Students will earn 30 service hours (internal/external combined) through their participation in course projects.

Course Objectives

- Identify and discuss fundamental social theories related to urban spaces, including the founding theorists, the history of the theory, and the corresponding methods of social scientific inquiry
- Understand the principles of urban transformation.
- Analyze the impact of STEAM on urban development
- Analyze current urban issues within a social science-based theoretical framework
- Collaborate with Newark-based community organizations to develop and implement a project to address an urban issue

Prerequisites: ENGL 102 with a grade of C or higher, and one History and Humanities GER 200 level course with a grade of C or higher.

Course Materials

- Books (Students will read selected chapters from each text):
 - Benjamin, R. (Ed.). (2019). *Captivating technology : race, carceral technoscience, and liberatory imagination in everyday life*. Duke University Press. <https://doi.org/10.1515/9781478004493>
 - Carter, M. (2022). *Reclaiming Your Community: You Don't Have to Move Out of Your Neighborhood to Live in a Better One*. Berrett-Kohler.

- Martin, R. (2016). *The Urban Apparatus: Mediapolitics and The City*. University of Minnesota Press.
- Mumford, K. J. (2007). *Newark : a history of race, rights, and riots in America* (1st ed.). New York University Press.
<https://doi.org/10.18574/nyu/9780814761151>
- Urban STS Reader:
 - Coutard, O., & Guy, S. (2007). *STS and the City: Politics and Practices of Hope. Science, Technology, & Human Values*, 32(6), 713-734.
 - Fariás, I. & Criado, T.S. (2024). Cities: Stories of urban STS. In A. Irwin & U. Felt (Eds.) *Elgar Encyclopedia of Science and Technology Studies* (pp. 533-542).
 - Hommels, A. (2020). STS and the City: Techno-politics, Obduracy and Globalisation. *Science as Culture*, 29(3), 410–416.
- Films:
 - Revolution ‘67
 - The Sacrifice Zone
- Organizations:
 - [Newark Community Street Team](#) (NCST)
 - [Newark Science and Sustainability](#) (SaS)
 - [Urban League of Essex County](#) (ULEC)
 - [GlassRoots](#)

Course Activities

- Lectures and Readings on current research on urbanization and the role of STEAM in cities
- Case Studies: Introduction to development in Newark
- Practicum: Collaborative development and implementation of urban development projects
- Guest Speakers: Insights from experts in urban development

Final Course Grade Calculation Summary

- Class participation (attendance and discussion) – 15%
- Reading responses x 2 (written assignments) – 20%
- Final Project (practicum, research, written, and oral assignments) – 60%
 - Practicum (Weeks 6-13 - time spent at selected organization including volunteering and research; 15 hours* minimum total) - 20%
 - Weekly fieldnotes - 10%
 - 5-6 pg. research essay on organization and impact on community - 10%
 - Poster presentation on fieldsite experience - 20%
- Reflection – 5%

Late Assignment Submissions: All late assignments will be accepted only if an extension is requested *prior* to the due date. Assignments will not be accepted more than 1 week late.

Paper Formatting: All papers should be written in APA style, including the following criteria: typed, double-spaced, 12 pt standard font (Times, Helvetica, Arial, etc), 1” margins. For digital submission, only the following file types are accepted: pdf, doc, docx.

Grading Scale (for assignments only, course grades will not include: A+, A-, B-, C-, D+):

96-100	A+
93-95	A
89-92	A-
86-88	B+
83-85	B
79-82	B-
76-78	C+
73-75	C
69-72	C-
66-68	D+
60-65	D
0-60	F

Academic Integrity:

Students are expected to follow the University Code on Academic Integrity. Plagiarism will not be tolerated. All cases of suspected plagiarism/cheating will be reported for investigation. For details, see: <http://www.njit.edu/academics/integrity.php>

Generative AI Use

Student use of artificial intelligence (AI) is permitted in this course for certain assignments and activities at the instructor’s discretion. If and when students use AI in this course, the AI must be cited as is shown within the [NJIT Library AI citation page](#) for AI. If you have any questions or concerns about AI technology use in this class, please reach out to your instructor prior to submitting any assignments.

Laptops and other technology rules:

Students may use laptops, tablets, cell phones, or other technology in this course for class-related activities only. Texting, using Twitter, playing games, etc. interrupts the flow of discussion, distracts other students, and will inevitably embarrass you when I have to call you out. Students are prohibited from using headphones. Be present and prepared when you are here. If you would rather text or surf the internet, please do not come to class.

Students with Disabilities or Special Needs:

Students who have disabilities or special needs should contact NJIT's Student Disability Services to help procure accommodations in completing coursework. The center can be found at <http://www.njit.edu/counseling/services/disabilities.php>.

Land Acknowledgement

I acknowledge and honor that I am teaching on the ancestral homeland and territory of the Munsee Lenape peoples, communities, and nation and recognize the longstanding significance of these lands for these nations past and present.

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Course Schedule

Weeks 1-5: Theoretical and Historical Foundations				
WK	CLASS DATE	TOPIC	READING	ASSIGNMENT Due Sunday by 11:59PM unless otherwise noted
1	*1/22	Introduction to Class	Carter, M. (2022). <i>Reclaiming Your Community: You Don't Have to Move Out of Your Neighborhood to Live in a Better One</i> . Berrett-Kohler. Chapters 1-8	Reading Response - part 1
2	*1/27	Urban theory Defining a City	Martin, R. (2016). <i>The Urban Apparatus: Mediapolitics and The City</i> . University of Minnesota Press. (Introduction + Chapters 7-10)	Chapter Summary (due in class 1/29)
	*1/29	Urbanization & STEAM STEAM & Urban Transformation	Benjamin, R. (Ed.). (2019). <i>Captivating technology : race, carceral technoscience, and liberatory imagination in everyday life</i> . Duke University Press. https://doi.org/10.1515/9781478004493 (Introduction (pp.1-22) + chapter of your choice) Coutard, O., & Guy, S. (2007). <i>STS and the City: Politics and Practices of Hope. Science, Technology,</i>	Chapter Summary (due in class 2/3) Reading Response - part 2

			<p>& <i>Human Values</i>, 32(6), 713-734.</p> <p>Fariás, I. & Criado, T.S. (2024). Cities: Stories of urban STS. In A. Irwin & U. Felt (Eds.) <i>Elgar Encyclopedia of Science and Technology Studies</i> (pp. 533-542).</p> <p>Hommels, A. (2020). STS and the City: Techno-politics, Obduracy and Globalisation. <i>Science as Culture</i>, 29(3), 410–416.</p>	
3	*2/3	Newark .101	<p>Mumford, K. J. (2007). <i>Newark : a history of race, rights, and riots in America</i> (1st ed.). New York University Press. https://doi.org/10.18574/nyu/9780814761151</p> <p>Introduction & Chapter 6</p> <p><u>Revolution ‘67</u></p> <p><u>The Sacrifice Zone</u></p>	Watch either Revolution ‘67 or The Sacrifice Zone and bring questions to class 2/3
	*2/5	Project Introduction & Virtual Site Introductions	Background Research on Project Sites	
Reflection Journal - Entry 1				
4	*2/10	Organization visits - Round 1	Background Research on Project Sites	

	*2/12	Organization visits - Round 2		Reading Response #2 - on Week 3 article of your choice
Reflection Journal - Entry 2				
5	*2/17	Preparation for the field - Group Formation and Role Assignments	Skills Inventory	
	*2/19	Preparation for the field - Action Planning		
Reflection Journal - Entry 3				

Weeks 6-14: Project Placements				
WK	CLASS DATE	TOPIC	READING	ASSIGNMENT Due Sunday by 11:59 PM unless otherwise noted
6	2/24	Project Site Visit	Research related to Project Tasks	Project Tasks

	2/27	Week 1 - Project Tasks	Research related to Project Tasks	Project Tasks
	Reflection Journal - Entry 4			
7	3/3	Project Site Check-in	Research related to Project Tasks	Project Tasks
	3/5	Week 2 - Project Tasks	Research related to Project Tasks	Project Tasks
	Reflection Journal - Entry 5			
8	3/10	Project Site Check-in	Research related to Project Tasks	Project Tasks
	*3/11	In-Class Status Update & Urban Theory Connection Overview Week 3 - Project Tasks		Week 3 Progress Report
	Reflection Journal - Entry 6			
Spring Break: March 16-23, 2025				
9	3/24	Project Site Visit	Urban Theory Connection	Project Tasks
	3/26	Week 4 - Project Tasks	Urban Theory Connection	Project Tasks
	Reflection Journal - Entry 7			

10	3/31	Project Site Check-In	Urban Theory Connection	Project Tasks
	4/2	Week 5 - Project Tasks	Urban Theory Connection	Urban Theory Connection
	Reflection Journal - Entry 8			
11	4/7	Project Site Check-In	Poster prep.	
	4/9	Week 6 - Project Tasks	Poster prep.	Poster Draft
Reflection Journal - Entry 9				
12	4/14	Project Site Check-In & Week 7 - Project Tasks	Poster revisions	
	*4/16	HIRF Poster Presentation Practice Session – Round 1	Poster revisions	Poster Abstract & Final Poster
(Final) Reflection Journal - Entry 10				
13	4/21	HIRF Poster Presentation Practice Session – Round 2	Poster Presentation Second practice during optional class or office hours	
	4/23	Project Site Check-In & Week 8 - Project Tasks		
Final Project Site Meetings & Site Evaluation; HIRF, Friday, April 25th 11:30 AM -1:00 PM (tentative)				

14	4/28	Project Site Check-In		
	4/30	Project Wrap - Up		
15	*5/5	Project Reflection		
	*5/7	Last Day of Class – Project Reflection (Individual)		Project Reflection (due by end of class, 5/7)