This course seeks to engage graduate students (and advanced undergraduates) from across Georgia Tech in exploring what Atlanta looks like through civic data. Today, data on the city are increasingly available. Micro and macro changes in the makeup of local neighborhoods can be tracked through demolition/construction permits, tax records, and community surveys, among other sources; all of which might be easily downloaded by anyone with an internet connection. But data can be available, without necessarily being accessible or actionable. In this course, students will examine how data can be made interpretable by creating their own community-based, data-driven, mapping projects designed to open dialogue about ongoing changes in the life of the city.

In order to create these maps, students will make use of the evolving infrastructure of the Atlanta Map Room, visible from the window of TSRB 209. (An explanatory video is available here: https://youtu.be/9EkI9Oav49c). The Atlanta Map Room is a space for creating interpretive maps of the city, from a combination of contemporary data, historical documents, and personal experiences. These maps are large-scale physical artifacts (up to 16 feet long!), collaboratively-made, and meant for exhibition. The Atlanta Map Room builds upon the recent success of the St. Louis Map Room (http://www.cocastl.org/stlmaproom), a project lead by course collaborator and digital artist Jer Thorp in conjunction with the Center of Creative Arts. Students in the course will contribute to the development of a unique map room for Atlanta, meant to explore invisible tensions in the city, between its rapid development as a commercial hub and its long history as a center for civil rights and culture in the Southeast.

LMC 6650 will combine aspects of a seminar and a studio. Early in the term, students will read about and discuss theories and practices from data studies and data visualization. Thereafter, they will develop their own extensions to the existing Atlanta Map Room (i.e. new data layers, automated drawing instruments, or augmented realities) in order to create a forum for collective reflection on the city of Atlanta. The course is meant to equip students with the skills and resources necessary to think
critically about cities through their data.

**LEARNING OUTCOMES**

- Students will learn to examine data as cultural artifacts, inextricably tied to information infrastructures and the details of their social, historical and material context.
- Students will learn to speak effectively about the ethics, aesthetics and epistemology of data.
- Students will develop skills for creating and critiquing visualizations of large data sets for public audiences.
- Students will learn to frame questions about data and develop their own answers through a combination of design and social science methods.

**Serve-Learn-Sustain Outcomes**

- Students will be able to identify relationships among ecological, social, and economic systems.

**ASSIGNMENTS**

There are two types of assignments in this course:

*Readings* will structure the theoretical portion of the course. Each student should complete readings before class and submit a written response online. Clear instructions will be given at the time the reading assignment is made. All reading selections listed on the syllabus are tentative. Additional readings may be assigned as supporting material along with projects and written assignments.

*Projects* are substantial efforts meant to develop your capacity to conceptualize and execute creative work. This requires the merger of technical expertise and creative vision. Projects also demand that you identify and describe a creative goal, such that I can evaluate your work against your stated objective. Attention to detail in execution is appreciated, but rougher-edged well-conceived work is encouraged over very polished, unimaginative work.

**GRADING**

Grades will be given based on completeness and excellence, distributed as follows:

- 20% Participation
- 30% Preliminary projects
- 50% Final project
Grades for projects will be distributed A-F with +/- modifiers used sparingly. Roughly speaking, an assignment will be excellent (A), good (B), satisfactory (C), unsatisfactory (D), or failing (F). To receive an "A" on assignments (and therefore, in the course), submissions must go above and beyond the basic requirements, showing exceptional care, creativity, and coherence. Submissions that fail to meet the requirements of the assignment or whose execution is incomplete or inadequate will receive a "C" or below.

*Deadlines* All assignments will include submission instructions and a due date. Late assignments will be penalized one letter grade per day. Assignments turned in on the due date, but after the specified deadline will be penalized half a letter grade. Extensions will only be granted in extreme circumstances (i.e. serious illness, family emergency). Failure to complete any of the projects may be grounds for a failing grade.

**CLASS REQUIREMENTS AND POLICIES**

Students are encouraged to bring their laptops to class. It is important to keep in mind that this class focuses on the principles and processes of visualization, not on technical skills; it is therefore up to you to develop and/or hone your facility with any tools required to complete assignments.

*Attendance* Students are required to attend and actively participate in all classes. Failing to attend 4 or more classes is grounds for a failing grade.

*Readings and Materials* will be distributed electronically via Canvas, email, or another readily available means. Some readings will be linked directly from the syllabus. Any materials not linked here can be found in the Canvas resources. Additional materials for projects will be distributed electronically. You will need your own laptop computer (Windows or Mac).

**DEBATE, DIVERSITY, AND RESPECT**

The Ivan Allen College of Liberal Arts supports the Georgia Institute of Technology’s commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in broader society.

In this class, we will present and discuss a diversity of perspectives. Although you may not always agree with others' perspectives, you are required to be respectful of others’ values and beliefs. Repeated inappropriate or abusive comments and/or behavior will be cause for disciplinary action. If you feel that your perspectives are being ignored or
slighted, or you in anyway feel uncomfortable in the classroom, please contact me immediately.

THE COMMUNICATION CENTER

The Communication Center is located in Clough Commons, Suite 447. It is an excellent resource for any student (undergraduate or graduate) who wants help with a communication-related project. You can visit the center for help at any stage of the process for any project in any discipline. The knowledgeable and friendly tutors are available to help you develop and revise your projects. They are not available to "fix" your projects. Please do not ask the tutors to proofread or edit your work. For information on making an appointment please visit http://communicationcenter.gatech.edu/content/makeappointment. If you need assistance with the appointment system, you can call 404-385-3612 or stop by the center. All services are free and confidential.

STUDENTS WITH DISABILITIES

Students should self-report to the Access Disabled Assistance Program for Tech Students at: 220 Student Services Building Atlanta, GA 30332-0285 404.894.2564 (voice) or 404.894.1664 (voice/TDD) www.adapts.gatech.edu/guidebook.html

PLAGIARISM WARNING

Plagiarism of any form will not be tolerated, and will result in a failing grade for the course. Plagiarism is not only the uncredited copying of text from another's work but also copying ideas or code from other digital artifacts. Adaptation of code samples (provided or found online) is not necessarily plagiarism. To facilitate your success on projects, I will try to provide sample code or links to other samples. However, explicitly copying entire algorithms or sample applications and representing them as your own is not permitted. Use sample code and online resources as tutorials to help you write your own original code. Copying more than 10% of a code sample will be considered plagiarism.

Having said that, students are encouraged to share and critique each others’ work. You are allowed (and encouraged!) to work together with other students, but collaboration is only permitted on group projects. On all other assignments, you are expected to complete and turn in your own work. Students may not submit work on another’s behalf. Unauthorized use of any previous semester course materials is prohibited. Violating these terms will be considered a direct violation of academic policy and will be dealt with according to the GT Academic Honor Code.

SCHEDULE
This schedule is subject to change at any time. Updates and changes will be announced in class or by email to students.

**WK 1:** THE ATLANTA MAP ROOM

**Tuesday, August 21:** Welcome

**Thursday, August 23:** Reading Response Due:

Further Reading:


Office of Creative Research, St. Louis Map Room

**WK 2:** WHAT ARE DATA?

**Tuesday, August 28:** Reading Response Due:


Further Reading:

Kitchin, Rob. 2014. *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*.


Drucker, Johanna. 2011. “Humanities Approaches to Graphical Display”


**Thursday, August 30:** Georgia Tech Data Collection In Class Exercise

**WK 3:** THE BELTLINE AS CASE STUDY

**Tuesday, September 4:** Georgia Tech Data Collection Exercise Due

**Thursday, September 6:** Introduction to the Atlanta BeltLine
Reading Response Due:

Serve-Learn-Sustain, “Atlanta BeltLine Case Study”


Further Reading:


WK 4: CIVIC DATA GUIDES, A: DATA SETTING

Tuesday, September 11: Civic Data Guide, Module A Due:

Unpacking a Data Setting
If we haven’t understood the data’s setting, we haven’t understood the data set. In this module of the Civic Data Guide, you will be examining one particular data setting and working to create an accessible, practical guide that can help you and others engage with it in productive ways.

Thursday, September 13: No Class (Our meeting will take place on Friday)

Friday, September 14 Tour of the BeltLine (1:00-2:00 pm West Side Trail)

WK 5: CIVIC DATA GUIDES, B: CONTEXTUAL INTERVIEW

Tuesday, September 18: Reading Response Due:


Thursday, September 20: Civic Data Guide, Module B Due:

Conducting a Contextual Interview
In this module of the Civic Data Guide, you will examine your chosen data set within a social context. The preferred
mode of learning about your data from a social perspective is by talking to people who are involved in creating, managing or using those data.

**WK 6:**

**CIVIC DATA GUIDE, C: WORKFLOW**

Tuesday, September 25: **Reading Response Due:**


Kurgan, Laura. *Close Up at a Distance: Mapping, Technology, and Politics.* 2013. (excerpt)

Thursday, September 27: **Civic Data Guide, Module C Due**

*Diagramming the Life Cycle*

In this module of the Civic Data Guide, you will be diagraming the "data workflow" for your chosen data set. This means learning more about processes of collection, normalization, and analysis used on the data.

**WK 7:**

**CIVIC DATA GUIDE, D: VISUALIZATION**

Tuesday, October 2: **Reading Response Due:**

Fry, Ben. 2008. *Visualizing Data: Exploring and Explaining Data with the Processing Environment.* (excerpt)


Thursday, October 4: **Civic Data Guide, Module D Due**

*Creating Comparative Visualizations*

In this module of the Civic Data Guide, you will be creating two complimentary visualizations of your data. These visualizations are meant to reveal the large-scale structure of your data and serve as a starting point for further exploration.

**WK 8:**

**EXTENDING THE MAP ROOM**

Tuesday, October 9: **No Class (Fall Recess)**
Thursday, October 11: Guest Speaker

**WK 9:** WORKING SESSION

Tuesday, October 16: Extension Proposal Due

Thursday, October 18: Critique

**WK 10:** WORKING SESSION

Tuesday, October 23: Critique

Thursday, October 25: Critique

**WK 11:** Mid-Term Review

Tuesday, October 30: Review

Thursday, November 1: Review

**WK 12:** WORKING SESSION

Tuesday, November 6: Guest Speaker

Thursday, November 8: Critique

**WK 13:** WORKING SESSION

Tuesday, November 13: Guest Speaker

Thursday, November 15: Critique

**WK 14:** WORKING SESSION

Tuesday, November 20: Critique

Thursday, November 22: Critique

**WK 15:** PRELIMINARY REVIEW

Tuesday, November 27: Review

Thursday, November 29: Review

**WK 16:** REFLECTIONS / EVALUATIONS
Tuesday, December 4: Course Discussion and Feedback

TBD FINAL REVIEW