

CP6233 Syllabus

Sustainable Urban Development, JG, 3 Credits

Fall 2026

Instructor Information

Instructor: Dr. Jairo Garcia

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General Course Information

Description

The objective of this course is to introduce students to the theory and practice of the challenges of sustainable development (aka sustainability) as applied to the built environment and its interconnectivity with the natural environment. It addresses a range of specific sustainability-related issues such as sprawl and smart growth, climate change, transportation, social equity and environmental justice, food systems, and community engagement.

Since 2008, the global urban population outnumbered the rural population and according to the UN, it is expected that by 2050 two-thirds of the world population will be living in cities that will generate 70 percent of the world's gross domestic products. People living in urban areas consume an enormous number of resources including energy, water, food, and many other materials, as well as generate massive amounts of waste and pollution. All of this puts massive pressure on resources and ecosystems; furthermore, the growing demand from cities will create more challenges to the limited earth resources. As such, it is necessary a new approach in urban thinking and planning defined as "sustainable urban development".

As defined by the Brundtland Commission in 1987, "sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Based on this approach, this course will familiarize students to sustainable urban development from a more inclusive three-dimensional perspective that places equal weight on environmental preservation, economic prosperity, and social equity. This approach will provide students with the tools needed to create healthy, livable, and prosperous human environments for present and future generations with minimum demand on resources and minimum impact on the environment.

Course Learning Outcomes

By the end of the course students will have accomplished the following:

1. Define Sustainable Urban Development (SUD) at the local and regional level and describe the relationships between the natural environment, economic prosperity, and social equity.
2. Describe the challenges of urban and regional settings including their negative impact on climate change and other environmental and social issues and how sustainable cities and regions can provide significant solutions to all these challenges.
3. Use methods and tools available to make urban and regional setting sustainable.
4. Develop basic solutions based on the concepts learned in class.

Required Course Materials

- *Radical Adaptation. Transforming Cities for a Climate Change World* Brian Stone. Available online and in the library.
- The Sustainable Urban Development reader (4th edition).
- *Sustainability: A Comprehensive Foundation (SCF)* Edited by Tom Theis and Jonathan Tomkin Rice, University, (2012). Available from the course Canvas site and from an Internet search.
- *Smart Sustainable Cities of the Future (SCOF)* by Simon Elias Bibri. Springer (2018). Available from the course Canvas site and from an Internet search
- *Second Assessment Report on Climate Change and Cities (ARC3.2) (2018)*. Available online: <https://uccrn.ei.columbia.edu/arc3.2>Links to an external site.

Recommended Readings:

- *Where We Want to Live* –by Ryan Gravel. St. Martin’s Press (2016). Available as a book in the library.
- *Triumph of the City* – by Edward Glaeser. Penguin Group (2011). Available as a book in the library.
- *The New Urban Crisis* – by Richard Florida. Basic Books (2017). Available online in the library.

Grading Policy:

Grades will be earned based on two exams (midterm and final), two individual assignments (book chapter and extracurricular activity), three team assignments (book chapter, SUD Tools, and SUD cities), and class attendance-participation.

Students are allowed to miss up to three (3) classes but will fail if four (4) or more classes are missed.

Coursework will be weighted as follows:

| Assignment | Points | Weight Final Grade |
|-----------------------------------------------------------------------------------|--------|--------------------|
| Midterm Exam | 100 | 10% |
| Final Exam | 100 | 10% |
| Individual Book Chapter Presentation (SUD Reader) Only presentation - no paper | 100 | 10% |
| Team Presentation Book Chapter Only presentation - no paper | 100 | 10% |
| Team Presentation SUD Tools Only presentation - no paper | 200 | 20% |
| Team Presentation SUD Cities Presentation AND paper (1,500 words) | 200 | 20% |
| Extracurricular Activity Presentation AND paper (2 pages) | 100 | 10% |
| Class Participation | 100 | 10% |
| Total | 1000 | 100% |

Grading Scale

Your final grade will be assigned as a letter grade according to the following scale:

| | |
|---|---------|
| A | 90-100% |
| B | 80-89% |
| C | 70-79% |
| D | 60-69% |
| F | 0-59% |

Description of Graded Components

-Class Attendance & Participation (100 points)

Attendance and participation are very important as they contribute to the overall learning and enjoyment of the class. Class Attendance includes a physical presence during class and participation. Students are allowed to miss up to three (3) classes but will be grade zero if four (4) or more classes are missed.

Note: Zoom attendance is reserved for emergency cases that must be approved by the instructor before the class.

A prerequisite to participating is showing up. Attendance is taken. Institute-excused absences should be communicated at least 24 hours ahead of time, via email, to the instructor. Commentary and questions that contribute to the in-class discussions and demonstrate thoughtful consideration of assigned readings will make up the second portion of your participation grade.

Final Participation Points = Attendance + Participation

- No absences + Participation = 100 points
- One absence + Participation = 90 points
- Two absences + Participation = 80 points
- Three absences + Participation = 70 points
- Four or more absences = 0 points

-Individual Book Chapter Presentation (SUD Reader) (100 points)

Students are required to read one chapter of the SUD Reader assigned by the instructor, prepare a PowerPoint presentation (or any other presentation aid), and present their findings to the entire class (see dates in the syllabus). Each presentation should not exceed 5 minutes.

-Individual Extracurricular Activity (100 points)

Students are required to choose an extracurricular activity related to SUD, prepare a presentation, and write a paper. Examples of extracurricular activities are working on a voluntary SUD project, attending a SUD event, or interviewing an official working in SUD. Students are required to prepare a PowerPoint presentation and make a 5-minute presentation of the activity to the class, as well as write and submit in Canvas a two-page

paper (not including title page, references, or appendixes; one-half spaced; 12 fonts; APA guidelines).

-Teams Assignments

Student will be randomly assigned to a team of 3-4 members.

Teams will be assigned:

- One book chapter to read and present
- One SUD tool presentation
- The Final Team Project about a SUD City (paper and presentation).

At the end of each one of the presentations, each one of the students will be required to complete an evaluation form for members of her/his team, including themselves.

The earned grades for the presentation will be an average among the quality of the presentation, the quality of the report, and the team-group evaluation form.

Papers and Presentations:

The paper and presentations should be submitted on Canvas. The paper should be a minimum of 1,500 words (one-and-a-half spaced, 12 font) using APA Style guidelines)

-Midterm Exam (100 points) and Final Exam (100 points)

Exams will be administered in-class via Canvas and have been scheduled to cover roughly the first and second halves of the course. All exam material will be drawn from the assigned readings, lectures, and guest presentations. Each exam will consist of two sections: short answer and essay. Approximately one week prior to an exam, the instructor will distribute a list of key concepts to focus study.

Course Policies

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Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. I articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Use of Generative AI

If you choose to use **Generative Artificial Intelligence** software (for example ChatGPT, Bard, Microsoft Copilot, etc.) in completing ANY assignments for this class, you must include a proper reference in your work. If you choose to use precise language generated by the software, you must quote it. The reference must include the website and specific prompts used to generate the referenced output. For an example of how to reference, you may want to consult APA.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Assignments turned in after the specified due date will incur a grade penalty according to the following schedule:

- Within 24 hours of original due date: 10% deduction off the final grade
- Between 24-48 hours of original due date: 20% deduction off the final grade
- Between 48-72 hours of original due date: 30% deduction off the final grade
- **After 72 hours the grade will be zero for the assignment.**

For team presentations, you will be expected to present on the day assigned to your group and these presentations will not be accepted for partial credit after the date assigned.

Inclement Weather and Digital Learning Days

In case of inclement weather, we will meet via Zoom **in Canvas**.

Student Use of Mobile Devices in the Classroom

Laptops, tablets, e-readers, and other digital devices may be used to take notes, refer to relevant information, and complete in-class assignments. If you are using a digital device for non-course purposes at any time during the semester, you will be asked to refrain from using it for the remainder of the course. No exceptions.

Campus Resources for Students

Undergraduate Student Academic Success Resources:

- Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

Graduate Student Academic and Professional Success Resources:

A list of resources for graduate students is given on the [Office of Graduate and Postdoctoral Education](#) website. Specific information for [current graduate students](#) includes

- [Academic Resources](#) such as the Communications Center, Language Institute, Library, Catalog, Registrar, resources for conducting research, Advocacy and Conflict Resolution resources, and how to manage unexpected situations that may impact your academic performance;
- [Student Resources](#) such as Campus Services, Child Care/Family programs, Health & Wellness, Career Services, and the Student Resource Guide; and
- [Professional Development](#) such as the programming from the Career Center and other professional development resources and events”

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list](#) of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being ([student-resource-guide \(gatech.edu\)](#))