**William J. Drummond**

**Associate Professor**

**School of City and Regional Planning**

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**Associate Professor**

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****I. Earned Degrees****

Ph.D., December 1989. University of North Carolina, Chapel Hill, North Carolina, Doctor of Philosophy, Department of City and Regional Planning.

Th.M., May 1980. Union Theological Seminary, Richmond, Virginia. Master of Theology, May 1980.

M.Div., May 1979. Gordon-Conwell Theological Seminary, South Hamilton, Massachusetts. Master of Divinity, summa cum laude.

A.B., May 1975. Duke University, Durham, North Carolina. Bachelor of Arts (History), summa cum laude, Phi Beta Kappa.

****II. Employment History****

Director, Master of Science in Geographic Information Science and Technology program, School of City and Regional Planning, Georgia Institute of Technology. February 2013 to present.

Interim Director, Master of Science in Geographic Information Science and Technology program, School of City and Regional Planning, Georgia Institute of Technology. October 2012 to February 2013.

Associate Professor, School of City and Regional Planning, Georgia Institute of Technology. May 1995 to present.

Associate Director, Center for Geographic Information Systems, Georgia Institute of Technology. February 1991 to June 2010.

Assistant Professor, City Planning Program, Georgia Institute of Technology. September 1989 to May 1995.

Instructor, City Planning Program, Georgia Institute of Technology. September 1987 to September 1989.

Lecturer, Department of City and Regional Planning, University of North Carolina at Chapel Hill. January 1986 to May 1987.

Minister, Pittsboro Presbyterian Church, Pittsboro NC. September 1980 to June 1982.

Instructor, Gordon-Conwell Theological Seminary, South Hamilton, MA. September 1977 to May 1979.

****III. Honors and Awards****

****IV. Research, Scholarship, and Creative Activities****

Indicate with an asterisk those that resulted from work done at Georgia Tech and put the names of student co-authors in boldface.

1. **Published Books, Book Chapters, and Edited Volumes**

Drummond, William J. “Quantitative Methods.” Chapter for *International Handbook of Planning Education*. Forthcoming.

1. **Refereed Publications and Submitted Articles**
2. **Other Publications and Creative Products**
3. **Presentations**
4. **Grants and Contracts**

**E1. As Principal Investigator**

 **E2. As Co-Principal Investigator**

**E3. As Senior Personnel or Contributor**

**E4. Proposals Submitted But Not Funded** (last two years)

1. **Other Scholarly and Creative Accomplishments**
2. **Societal and Policy Impacts**

Sustainability is one of the School’s fundamental core values. In 2018 I served as the ad hoc coordinator for the School’s undergraduate minor in Sustainable Cities. Over that year I worked with Dr. Jenny Hirsch (director of the Institute’s Serve/Learn/Sustain undergraduate quality enhancement program) to modify our Sustainable Cities curriculum so it could become the first (and for the foreseeable future only) undergraduate minor affiliated with Serve/Learn/Sustain. This benefits the Institute (and the larger social and policy sustainability goal) by giving undergraduates the ability to take a coherent body of five courses directly related to sustainability. Students graduating with the minor will have a solid foundation to promote sustainability in their professional work and/or as engaged, concerned citizens.

1. **Other Professional Activities**

****V. Teaching****

1. **Courses Taught**

Sem./Year Course No. Course Title No. of Students

Spring 2017 CP 6570 Socioeconomic GIS 17

Spring 2017 CP 8505 Advanced Quantitative Research Methods 7

Spring 2017 CP 6592 Capstone Project Preparation 7

Summer 2017 CP 6950 GIS Capstone Course 7

Fall 2017 CP 4190 Climate Change Planning (undergraduate) 12

Fall 2017 CP 6190 Climate Change Planning (graduate) 8

Fall 2017 CP 8853 GIS Programming 16

1. **Individual Student Guidance**

List all Postdoctoral Fellows, Ph.D. students, M.S. Thesis students, and undergraduate students supervised/advised. Explicitly indicate and co-advisement relationships. For Ph.D. and M.S. Thesis students, include date of graduation and title of thesis and, if known, the current position of the graduate students. For graduate students currently supervised, indicate the semester advisement began, their progression through appropriate exams, title of their project/dissertation, and current position if available. Provide any indicators you have of the quality of your mentorship.

**B1. Ph.D. Students**

In September 2015 I became the advisor for John Lee, a GIS-oriented Ph.D. student, and I have continued in that role. Mr. Lee developed major health issues and passed away in December 2018.

**B2. M.S. Students** (indicate thesis option for each student)

In Spring and Summer 2018 I served as GIS Capstone advisor to the following student projects:

Anand, Spandana: Calculating Change in Regional Accessibility Due to Autonomous Vehicles

Cunningham, James: Economic Shifts Along the US-Mexico Border: Investigating the Changes in Location Quotient at the Block Level in Four US Border Cities from 2004 to 2015

Goware, Tamanna: Effect of Geographical Location on the Price of Airbnb Listings in the City of Atlanta

Leonard, Matthew: Highways, Urban Renewal, and Patterns in the Built Environment: Exploring Impacts on Atlanta Neighborhoods

Lin, Duoduo: The Impacts of Urbanization on Runoff Potential in Fulton County, Georgia

Pang, Jia: Modeling Transit Dependency Index And The Analysis on the Intersecting Transit-Dependent Groups — A Spatial Microsimulation Approach

Walker, Evan: Statistical and Spatial Relationships between Health Insurance, Race, Income, and Education in the state of Georgia Immediately Before and After the Implementation of the Affordable Care Act

**B3. Undergraduate Students**

**B4. Service on Thesis or Dissertation Committees

B5. Mentorship of Postdoctoral Fellows or Visiting Scholars**

1. **Other Teaching Activities**

List all other significant teaching activities, such as continuing education, new courses developed, laboratory experiments and instructional materials developed, participation in any doctoral committees, and participation in any interdisciplinary teaching activities, etc.

(1) I developed CP 6950, the GIS Capstone course, with an entirely new body of content. At that time the 6-credit course consisted of 3 hours of largely independent capstone project work and 3 hours of project-related lecture material. In prior years the course lectures focused on Python programming as the primary GIS scripting language. However, the curriculum modifications now placed that material in a separate GIS programming class taught in the fall semester. In summer 2018 the Python content of CP 6950 was replaced with content related to open source GIS. This included R (with a special emphasis on sf and sp spatial analysis), SQL, QGIS, and PostGIS. In a subsequent curriculum modification approved during 2018 (see below) this material became the basis for a separate summer 3-credit course: GIS System Design and Management, and the capstone project became a separate 3-credit course.

(2) During 2018 I continued implementation of the major MS-GIST curriculum overhaul whose implementation began in Fall 2017. Based upon feedback from the GIS students, including the formal spring 2018 all-program meeting with the school chair (and program director), the modified curriculum received very positive reviews from the students.

(3) During the major MS-GIST curriculum modification, several members of the Institute Graduate Curriculum Committee questioned the propriety of a single 6-hour course combining both lecture material and independent capstone work. In addition, class scheduling was complicated by enforcement of a requirement that each hour of lab be scheduled in a classroom as three hours of class time. To address those problems I developed a second curriculum modification broke the 6-hour capstone into two separate 3-hour classes and shepherded the curriculum modification and two new courses through the curriculum modification process. These changes will have the added benefit of allowing non-MS-GIST students to also take the GIS System Design and Management course.

(4) Three graduates of the MS-GIST degree have returned to school after already completing the MCRP (or equivalent) degree. In addition, several students have inquired about the possibility of earning both the MCRP and MS-GIST degrees simultaneously. In fact, the School already offers four dual degrees, but, ironically, it did not offer a dual degree that included the School’s own two Masters degrees. In response, in 2017 I began the process of developing a new dual degree for the MCRP and MS-GIST. Unfortunately this process required the same background research and proposal development that was required to seek approval for an entirely new degree. Despite the level of work required, during 2018 I developed the dual degree proposal and oversaw the approval process at the levels of School, College, and on November 1, 2018 it was approved by the Institute Graduate Curriculum Committee and on November 27, 2018 it was approved by the Academic Senate. Dual degrees within a single institution do not need approval from the Board of Regents.

(5) During the spring 2018 semester I contributed to the School strategic plan development process by writing a white paper proposing that the School develop a new degree in urban analytics. I coordinated a faculty committee that considered and recommended the degree to the full faculty. The faculty adopted the proposal at the August faculty retreat, and I have continued to serve on the planning committee for the degree.

****VI. Service****

1. **Professional Contributions**

Manuscript reviewer, Journal of the American Planning Association

Manuscript reviewer, Journal of Planning Education and Research
Manuscript reviewer, PLOS One

1. **Public and Community Service**

Member, Atlanta Regional Commission Integrated Modeling Technical Review Committee. August 2008 to present.

1. **Institute Contributions**

Member, Institute Technology Fee Advisory Committee

Member, Provost’s Curriculum Committee for review of courses from non-academic units

Member, School of City and Regional Planning RP&T committee

Chair, School of City and Regional Planning MS-GIST committee.

****VII. Summary Statement and Goals****

My major contributions over the last year and my goals for the coming year are summarized in three areas.

1. The MS-GIST program has successfully implemented the major curriculum revision in a process that began in 2017 and continued through 2018. We have also gained approval for a dual MCRP/MS-GIST degree. In the coming year I will take the lead in implementing the new dual degree. In the fall 2019 I will have primary responsibility for the first MS-GIST degree academic program review. I will write the self-study report during the summer of 2019 and I will coordinate the fall 2019 site visit of the external review team.
2. During the coming year I will continue to assist in the development of the urban analytics degree and I will help implement the modified Sustainable Cities minor modifications.
3. For the past year I have devoted very large amounts of energy and time to curriculum development for the undergraduate minor, the MS-GIST curriculum modification, the dual MCRP/MS-GIST degree, and the urban analytics degree. However, for 2019 I will be re-setting my priorities. For the last five years I have taught a full course load, directed the MS-GIST degree, and been the only tenured or tenure-track faculty member to teach over the summer. I have been compensated for this with summer salary. As I first discussed with the school chair in spring 2018, I now need time to concentrate on publishing articles for which I have already done much of the analytical work. I will not take any summer salary in 2019 but I will direct the MS-GIST program in return for release from teaching one course during the academic year. As agreed with the current chair, next year I will be teaching GIS Programming, Socioeconomic GIS, and the Ph.D. Advanced Quantitative Research Methods course. These teaching assignments should enable me to publish two (or more) peer-review articles during the 2019-2020 academic year. I am continuing to work with Ben Kraft on new statistical methods for population projection. We have a second draft of an article to be submitted to *Population Research and Policy Review* and we hope to begin work on a second article exploring the planning implications of formal incorporation of uncertainty into population projections, for the *Journal of Planning Education and Research*. Finally, Steve French and a I are working on a new draft of our manuscript “Estimating Neighborhood-Level Building Energy Consumption and CO2 Emission for Climate Action Planning.” This paper was rejected by *Energy Policy* (on the basis of a single review), but we are re-purposing it for *Environment and Planning B*.

****VIII. CIOS Course Survey Summary Table****

