

[CP6591-A] GIS Professional Seminar

Course Information

Instructor: Ramachandra Sivakumar (siva@design.gatech.edu)

Course Prefix and Number: CP 6591 - A

Term: Fall 2026

Class Location & Time: CoC Room 53 on Mon. 11:00 - 11:50 am

Office Hours: Wed 11:00-11:50 am & By Appointment

Course Description

The GIS Professional Seminar course prepares students for the transition from academic study to professional practice in Geographic Information Science and Technology (GIS&T). The course examines the evolving GIS profession, career pathways, professional competencies, ethical responsibilities, emerging technologies, and expectations of GIS professionals across public, private, nonprofit, and research sectors.

Through discussions, case studies, professional literature, labor-market analysis, student presentations, reflective assignments, and interactions with practicing GIS professionals, students will examine the knowledge, technical competencies, professional judgment, and interpersonal skills required for successful geospatial careers. Topics include the GIS labor market and career pathways; the GIS&T Body of Knowledge and geospatial competency frameworks; GIS applications across industry sectors; enterprise, web, and cloud GIS; automation and spatial data engineering; artificial intelligence and GeoAI; ethics, fairness, privacy, and responsible use of geospatial technologies; GIS project and organizational management; professional communication; professional organizations and certification; lifelong learning; and development of a professional GIS portfolio.

Emphasis is placed on developing students' ability to critically evaluate changes in the geospatial profession, identify their own professional competency gaps, communicate the value and limitations of GIS to diverse audiences, and make responsible professional decisions in an environment increasingly influenced by automation, artificial intelligence, and interdisciplinary geospatial technologies.

Course Learning Outcomes

By completing this course students will accomplish following objectives:

- Understand core competency areas in GIS Body of Knowledge.
- Understand the opportunities and challenges of evolving GIS profession and to be prepared for a successful career.
- Participate in one or more GIS professional activities and organizations.

- o Review the full range of technical topics covered by GISP certification.
- o Understand what constitutes an attractive, well-designed portfolio.
- o Develop relationships with local area GIS professionals.
- o Understand and discuss ethical issues in GIS Practice.
- o Contribute to technical forums, create discussion threads, and blog posts in relevant industry platforms.
- o Engage and learn from GIS professionals through invited talks.
- o Improve soft skills to be successful GIS professional.

Required Course Materials

No textbooks or materials are required.

Assignments and Weekly course schedule

Refer to course canvas site for detailed course content and assignments.

Grading Policy

Student grades will be based upon continuous evaluation over the full semester. Points will be accrued on satisfactory completion of tasks outlined as per deadlines.

A = 90-100%; B = 80-89%; C = 70-79%; D = 60-69%; F = <60%

Late submissions will incur 10% penalty for each class it is late. Assignments submitted more than 3 days past deadline will not get credit.

Attendance Policy

Attendance is mandatory. Students are allowed a maximum of two excused classes. Unexcused absences will result in point deductions.

Academic and Research Honesty/Integrity Statement

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 the student

[Code of Conduct](#) and the [Academic Honor Code](#), especially [Appendix A: Graduate Addendum to the Academic Honor Code](#).

Students are expected to perform research in an ethical and responsible manner. All Doctoral and Master's Thesis students are required to take the [Responsible Conduct of Research training](#), and it is expected that students abide by the principles taught in that training while performing research.

Allegations of scientific or scholarly misconduct are handled in accordance with the procedures outlined by the [Policy for Responding to Allegations of Scientific or Other Scholarly Misconduct](#).

Core IMPACTS

Not applicable.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) 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.

Expectations of Students

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. The [Expectations of Advisors and Advisees](#) articulates some basic expectations that you can have of your advisor and that they can have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek.