

ECE 6610 Syllabus

Wireless Networks (A, Q)

3 credits

Fall 2026

Instructor Information

Instructor: Raghupathy Sivakumar

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General Course Information

Description

The course covers the theory, concepts, and practice of how algorithms and protocols in wireless networks are developed and operated.

Course Learning Outcomes

Your learning outcomes here.

Upon successful completion of the course, you should be able to:

- Understand fundamental concepts in wireless network protocols and algorithms
- Understand impact of wireless networks on the different layers of the network protocol stack
- Theoretical and practical exposure to problems and solutions in wireless network protocols

Required Course Materials

- No textbook
- Class discussions + slides
- Suggested reading

Grading Policy:

(G: Group work, I: individual work)

Programming assignments	32	G
Exam 1	15	I
Exam 2	15	I
Wireless Research	10	G
Wireless Venture	10	G
Participation	10	I
Peer Review	8	I
TOTAL	100	

Letter grades: A: $\geq 90\%$, B: $\geq 80\%$, C: $\geq 70\%$, D: $\geq 60\%$ Assignments

Description of Graded Components

Programming Assignments and Presentations

- 4 programming assignments + 2 student presentations
- Students to complete assignments in groups of 4*
- 60% (52 + 8) of your final grade
- The PAs will be based on the ns3 network simulator
- The student presentations will be based on research papers and technology presentation for a wireless startup

Exams

Exams will test your understanding of the concepts taught in class and learnings from the programming assignments and research paper readings.

Participation

Students are expected to attend class regularly, ask questions, and participate in discussions in class. Students will be expected to submit an end of semester summary of their participation during the course.

Peer Review

Students will work in groups of 4-5 (subject to change depending on enrollment). Each student will be evaluated by their peers in the group in terms of contributions to the completion of an assignment or presentation.

Course Policies

Attendance and/or Participation

Students are expected to attend class regularly, ask questions, and participate in discussions in class. Students will be expected to submit an end of semester summary of their participation during the course.

Class discussions and participation is necessary both to get complete understanding of the material, and to secure the participation grade.

Although it is recognized that occasionally it may be necessary for students to be absent from scheduled classes for personal reasons, students are responsible for all material covered in their absences, and they are responsible for the academic consequences of their absences. Students should discuss planned absences with the instructor as soon as possible after the beginning of an academic term. Work missed may be made up at the discretion of the instructor.

Students can write to the instructor to make up missed work because of an illness.

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.

Core IMPACTS

[Core IMPACTS](#) is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated [career competencies](#). [This resource](#) developed by the Center for Excellence in Teaching and Learning and Online Education at

Georgia State University includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

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. [The Student-Faculty Expectations](#) 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.