

## **ECE 683 Cloud IoT Networking and Security Fall 2025**

**Instructor:** Dr. Abdallah Khreishah, 349 ECEC.

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**Office Hours:** Thursdays 5-6pm or by appointment via email/phone call

**Meeting times:** Thursdays 6-9 pm

**Meeting place:** CULM LECT 2

TA: TBD

Co-requisite: [ECE 673](#) RANDOM SIGNAL ANALYSIS I

### **Required background:**

- Basic knowledge of communications and probability.
- Knowledge of programming.

### **Textbook and References**

- Textbook: Computer Networking: A Top-Down Approach, 8<sup>th</sup> edition, Jim Kurose and Keith Ross
- References (not required)
  - 1) Cloud Networking, Gary Lee
  - 2) IoT Fundamentals: Networking Technologies, Protocols and use cases for Internet of Things, David Hanes et. al.

### **Topics to be covered (subject to modification by the instructor)**

- Introduction
- Layered Architectures
- Application layer
- Transport layer
- Network Layer
- Wireless Networks
- Introduction to security and cryptography
- Network Security
- Cloud Computing (Networking and Security use cases)
- Internet of Things (Networking and Security use cases)

**Grading**

- Homework will be assigned.
- Mid-term and final exams will have the difficulty level similar to homework's.
- A short quiz is given during every other class, unless otherwise specified.
- Grades are based 20% on quizzes, 20% project & HW, 30% on midterm, and 30% on final.
- No makeup.

**Generative AI tools:**

Students can use generative AI tools to help with the assignment and project, but the student must disclose the level and reason Generative AI tools have been utilized.

**Honor Code**

The NJIT Honor Code will be upheld, and any violations will be brought to the immediate attention of the Dean of Students.