



# THE CITADEL

ELECTRICAL & COMPUTER ENGINEERING

**ELEC 645–81, Data Communication Networks**  
**Course Syllabus for Fall 2018**  
**TR 6:45pm – 8:00pm, Room: Grimsley 328**

- Instructor:** Dr. Jason S. Skinner, Grimsley 310, Phone: 843-953-3352  
Email – [jason.skinner@citadel.edu](mailto:jason.skinner@citadel.edu)
- Office Hours:** TR 1pm–5pm and by appointment
- Textbooks:** **Required:** *Computer Networks: A Systems Approach*, 5<sup>th</sup> Edition, L. Peterson and B. Davie  
**Additional Reading:** *TCP/IP Sockets in C: Practical Guide for Programmers*, 1<sup>st</sup> Edition, M. Donahoo and K. Calvert; or *TCP/IP Sockets in C: Practical Guide for Programmers*, 2<sup>nd</sup> Edition, M. Donahoo and K. Calvert
- Websites:** Professor – <http://www.jason-skinner.com>  
Course – <http://citlearn.blackboard.com>  
CitLearn (Blackboard) will be used to post course information (such as this syllabus), lecture slides and notes, homework assignments, corrections and answers to questions about assignments, and individual grades.
- Prerequisites:** ELEC 206 – Computer Applications for Electrical Engineers (or equivalent C/C++ programming course)  
ELEC 412 – Applied Probability and Statistics for Engineers (or equivalent course)
- Description:** Fundamentals of data communication networks. Emphasis on network algorithms and their performance. Topics include: layered network architecture, Link Layer protocols, high-speed packet switching, queueing theory, Local Area Networks, and Wide Area Networking issues, including routing and flow control.

## Important Dates:

Monday, September 3 ..... Labor Day (No Classes)  
Monday, September 3 ..... CGC/EUGS Drop/Add ends  
**Tuesday, September 25 ..... Test 1 (tentative)**  
Tuesday, October 16 ..... Last Day to Withdraw with grade of “W” for CGC/EUGS  
**Thursday, October 30 ..... Test 2 (tentative)**  
Friday, November 16 ..... Fall Break begins  
Sunday, November 25 ..... Fall Break ends  
Tuesday, December 4 ..... CGC/EUGS Classes end  
**Tuesday, December 11 @ 5:15pm ..... Final Exam**

## Course Outline:

Reading	Topics	Time Frame (approx)
Chapter 1	Course Overview, Foundation	225 minutes
Chapter 2	Connecting to Networks	225 minutes
Chapter 3	Internetworking	300 minutes
<b>Test 1</b>	<b>Chapters 1 – 3</b>	<b>September 25</b>
Chapter 4	Advanced Internetworking	225 minutes
Chapter 5	End-to-End Protocols	225 minutes
Chapter 6	Congestion Control and Resource Allocation	225 minutes
<b>Test 2</b>	<b>Chapters 4 – 6</b>	<b>October 30</b>
Chapter 7	End-to-End Data	150 minutes
Chapter 8	Network Security	225 minutes
Chapter 9	Applications	150 minutes
<b>Final Exam</b>	<b>Chapters 1 – 9</b>	<b>December 11</b>

**Attendance:** Attendance is mandatory. Unless circumstances preclude it, it is your responsibility to notify Dr. Skinner of any schedule conflicts or excused absences that will result in your missing class. It is college policy that a grade of F may be awarded to a student if that student misses more than 20% of the course meetings (excused or unexcused). For this course, **6 classes** constitute 20% of the class meetings.

**Classroom Decorum:** No food or drink is permitted in the classrooms of this building. Proper attire is encouraged, and ECE department policy prohibits hats, cutoffs, shorts, tank tops, and feet without socks in class.

**Special Needs** Students currently documented or anticipate being documented as Learning Disabled (LD), as having Attention Deficit Disorder (ADD), or with another condition for which you might need special accommodation during the semester must provide written documentation of the condition and of the accommodation needed to me within two weeks of the semester start. You may then choose, by notifying Dr. Skinner before the start of each exam or assignment, whether you will need any accommodation. Notification after the start of an exam or last minute notification on an assignment will not be accepted. Please Note: To request academic accommodations (for example, a note taker), students must also register with Academic Support/Special Services, 953-1820, located in Thompson Hall. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements.

**Homework:** Homework will be assigned on Tuesdays and will be collected at the BEGINNING of the class period on the following Tuesday. Exact due dates will be provided on the CitLearn course page, by email, and in class when the homework is assigned. Late homework will be assessed a 20% penalty. Homework will not be accepted after solutions are posted on CitLearn and will be given a zero grade. If you will be absent on the day of an assignment, arrange to have a classmate turn in your work for you. Homework will be graded for correctness, effort, completeness, and neatness (legibility). You may obtain assistance when doing your homework. Copying of homework is not the same as assistance. Your homework is a graded assignment and must be your own work.

**Projects:** There will be projects assigned throughout the semester. Each project must be your own work. **Collaboration is not allowed on projects.**

**Tests:** There will be two in-class tests and one final exam. The final exam will be cumulative. Assigned tests are required. Tests take precedence over all other duties or activities unless authorized to the contrary by Dr. Skinner. If you know you will miss an test, you must let Dr. Skinner know as soon as possible so a make-up test time can be arranged. Make-up tests will only be given for those students that have made a reasonable attempt to contact Dr. Skinner. **Collaboration is not allowed on tests or final exams.**

**Grading:** Students will be graded on everything that is required to be turned in. All exams are scheduled well in advance. Due to the potential unfairness of make-up exams, they will only be given in extreme circumstances. Your final grade in the course will be determined as follows:

Homework .....	15%
Projects .....	15%
Tests .....	each 15%
Final Exam .....	40%

The grading scale used in this course is:  
A: 90–100; B+: 85–89; B: 80–84; C+: 75–79; C: 70–74; F: 0–69

**Cheating and Collaborative Work** According to The Citadel’s policies for the preparation of work performed outside the classroom:

All papers, reports, senior essays, theses, or other written work performed outside the classroom for which a grade is received will be the individual’s work and is subject to the limitations imposed by the definition of plagiarism.

According to Webster’s New International Dictionary, 3rd Edition: to plagiarize is defined as ”to steal and pass off as one’s own the ideas or words of another” or to ”present as new and original an idea or product derived from an existing source.”

**CHEATING IN ANY FORM WILL BE FULLY PROSECUTED.**