**Syllabus**

**CNA 426/526: Computer Networking II**

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| **Location:** ECC 116 | **Days:** T, R |
| **Semester:** Fall 2011 | **Times:** 3:30-4:45 pm |
| **Professor:** Dr. Tirthankar Ghosh | **E-mail:** tghosh@stcloudstate.edu |
| **Office:** ECC 248 | **Phone:** (320) 308-2213 |
| **Office hours:**   |  |  | | --- | --- | | Monday | 10:00 - noon | | Tuesday | 9:30 – 10:30 am  1:00 – 3:00 pm | | Wednesday | 10:00 – 11:00 am  noon – 3:00 pm | | Thursday | 2:00 – 3:00 pm | |  |
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**D2L will be used for the uploading lecture slides, reading materials, grades, and other course materials.**

**Description:** The course covers a detail description of the standards and protocols used from Network Layer to Application Layer of the TCP/IP Network model.

**Objectives:**

1. Understand the need and design of the layered network model.
2. Learn how different protocols work in each layer from Network through Application layers.
3. Learn the standards that are used in the layered model.
4. Apply the theories of the protocols and algorithms in network design and problem solving.

**Course Learning Outcomes:**

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| **Students will….** | **Assessment** |
| Describe how different protocols work in each layer from Network through Application layers in the layered network model. | Exams, quizzes. |
| Apply the theories of the protocols and algorithms in network design and problem solving. | Exams, quizzes, project. |

**Text:** Data and Computer Communications, 9th edition, William Stallings, Prentice Hall, 2010.

**Tests/Quizzes/Homeworks/Project:** There will be about 5 homeworks, 4 or 5 unannounced quizzes, 1 midterm exam, 1 final exam, and one class project.

**Grading:** Grades will be distributed as follows:

95% to 100% ----- A 70% to 74% ------ C+

90% to 94% ----- A- 65% to 69% ------ C

85% to 89% ----- B+ 60% to 64% ------ C-

80% to 84% ----- B 55% to 59% ------ D+

75% to 79% ----- B- 50% to 54% ------ D

45% to 49% ------ D-

**Grade Composition:**

Quizzes – 100 points

Midterm Exam – 50 points

Final Exam – 100 points

Homeworks – 100 points

Project – 50 points

Attendance – 40 points

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Total : 440 points

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**Schedule:** The tentative schedule for the class is given below. In case the schedule is to be changed, students will be given as much advance notice as possible.

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| **Week** | **Topics covered** |
| 1 | Course outline, Introduction to Internetworking, Network Addressing |
| 2 | Network Addressing (cont’d) |
| 3 | Routing |
| 4 | Routing (cont’d), Internet Protocol |
| 5 | Internet Protocol (cont’d) |
| 6 | LAN overview |
| 7 | Wireless LAN |
| 8 | **Midterm exam**, Fall Break |
| 9 | Internetwork Operation |
| 10 | Quality of Service |
| 11 | Multiprotocol Label Switching (MPLS) |
| 12 | Transport Protocols |
| 13 | Transport Protocols (cont’d) |
| 14 | Congestion Control, Thanksgiving Break |
| 15 | Congestion Control (cont’d) |
| 16 | **Final Project Presentation** |

**Attendance to every class is required. Four excused absences will be allowed. Each absence after that will result in 0.5% point deduction from the total points.**

**No quizzes will be made up except in certain unavoidable circumstances including family and medical emergencies, and SCSU-sponsored events. If a student must miss a scheduled test, it is imperative that he/she calls or e-mails me as soon as possible before the test.**

**No academic dishonesty, including but not limited to, cheating, plagiarism, misrepresentation of student status, and resume falsification (as per the definition in the SCSU Student Handbook), will be tolerated for the assignments and exams.**