CS4516 Advanced Computer Networks

Course Information and Procedures {April 23, 2012}

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Office Hours: TBA on web page

Texts: [required] Computer Networking A Top-Down Approach, Fifth Edition, Kurose and Ross [recommended] TinyOS Programming, Levis and Gay

CS4516, the sequel to CS3516, Computer Networks, is a more in-depth treatment of modern computer networks technology, design and performance issues. The programming assignments require a good background in programming in C or C++, some Java and will involve Linux system calls. Two of the programming assignment will involve programming TelosB motes using TinyOS and nesc. Knowledge of data structures, operating systems and simple probability are prerequisites for this course.

Students are responsible for **any** information given out in class!

Class Email

Students should check their email **daily**. The class email list, <u>cs4516-all@cs.wpi.edu</u>, is automatically created based on official registration information. The TA and I will use this mailing list to send information to the class. You can send email to the entire class using this group alias. However, judicious and courteous use of this class alias is expected. Questions about the course should be sent to <u>cs4514-ta@cs.wpi.edu</u> The TA will monitor this list and answer detailed questions. I will handle all policy issues.

Programming Assignments

<u>http://www.cs.wpi.edu/Help/documentation-standard.html</u> specifies the CS Department Documentation standards. Documentation rules will be discussed in class prior to the first program due date. Every function or subroutine **must** include only one primary author per function or routing. This is critical to grading team projects fairly.

Turn in your programs using the turnin program on the CCC machines (see http://www.cs.wpi.edu/Resources/turnin.html). Turn in a tarred file that includes source code, a README file and a make file for each assignment. README provides information to assist the TA in grading your programs. All programs must compile and execute on one of the WPI Linux platforms. If your program partially works, (namely, your program compiles successfully put only part of the required functionality works correctly), to receive partial credit your README must honestly explain the state of your assignment when it was turned in. Note: programs that do not compile will not be graded and receive a grade of O. Programs without comments will not be graded and will receive a grade of O. Each programming team can submit only one turnin per assignment.

The last three programming assignments will require team demonstrations that will have to set by reservations.

Late Assignment Penalties

Programs and Report Assignments that are late time **t** where:

| 0 minutes $< \mathbf{t} \le 1$ day | lose 10% off the top of the maximum point count before the rest of the grading begins |
|--------------------------------------------------|----------------------------------------------------------------------------------------------|
| $1 \text{ day } < \mathbf{t} \le 3 \text{ days}$ | lose 30% off the top of the maximum point count before the rest of the grading begins |
| 3 days $<$ t | the maximum grade attainable is only 50% of the original possible points. |

Weekend days (Saturday and Sunday) are **excluded** from the count of late days. NOTE: Programs are due at the **exact time specified.** Hence, the late time, **t**, given above is measured from **time specified with the due date.**

No programming assignments will be accepted for grading after 10 a.m., Monday April 30, 2012.

Course Grading Points

To pass this course you must have a passing grade on the programming assignments AND on the exams.

| | | turnin name | | |
|--------------------|---------------|-------------|------------|---------------|
| Program 0 | 6 Pts | prog0 | | |
| Design Report | 40 Pts | | First Exam | 80 Pts |
| Program 1 | 70 Pts | prog1 | | |
| WLAN Measurement | 40 Pts | | | |
| Program 2 | 34 Pts | prog2 | | |
| Program 3 | 50 Pts | prog3 | Final Exam | 100 Pts |
| Programming Total | 240 Pts | | Exam Total | 180 pts |
| *Subjective Points | 30 Pts | | | |

Total Course Points 450 Pts

***Subjective points** come from the opinions of the instructor and the TA with respect to class participation/attendance, any homework assignments, and effort seen through interaction with the TA and instructor on programming assignments. Please be sure to introduce yourself during office hours if you want to receive subjective points. Note well – subjective points are **not guaranteed at all!**