Wright State University

CORE Scholar

Fall 2013

CEG 7470-01: Advanced Wireless Networks

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Repository Citation

CEG7470 Advanced Wireless Networks

SYLLABUS

Fall 2013

Drop dates: 9/20 (in-person), 9/22 (online) no grade; 10/25 (in-person), 10/27 (online) with a W
Last day of class: December 7

Time/Place Section 1: 6:10-7:30pm, 3 credits, M, W Russ 154A

Instructor Dr. Bin Wang, Professor, 491 Joshi Research Center
Tel: (937) 775-5115, E-mail: *send email via Pilot*
Office hours: 3:00-4:00pm M, W, or walk-in

Prerequisites CEG6400

Textbooks *Required*: Wireless Networking Complete, Morgan Kaufmann
References: Wireless Communications & Networks, 2nd Ed, William Stallings, Prentice Hall, 2005
Wireless Networking: understanding internetworking challenges, John Wiley, 2013
Wireless Networking Technologies: from principles to successful implementation, 2007

Webpage http://pilot.wright.edu
News Group Check daily Pilot for announcements, assignments, homework, questions and answers.

Course Objectives This course covers advanced topics in wireless networking and mobile computing, including supporting wireless technologies, various types of wireless networks, mesh networks, mobile protocols, mobile security, emerging wireless and mobile technologies, and so on.

Students' You are expected to:
Responsibilities
1) read assigned materials **prior to** class and come up with questions. Reading materials will be assigned in advance.
2) attend classes on a regular and timely basis. Regular class attendance is mandatory and is essential to success in the course. You are responsible for all contents, handouts, and announcements distributed/made in class.
3) complete and turn in your assignments timely. You are expected to write your own programs. **Do not** copy from or give your work to others, and **do not** make it possible for others to copy any portions of your work. Violators will receive a **zero** credit on the assignment.
4) be present for exams at the scheduled times. If there is a catastrophic event that prevents you form taking an exam, please contact the instructor as soon as possible.

5) not disturb/disrupt the class.
6) consult with the instructor and/or graduate teaching assistant if you have questions regarding course contents, lectures, handouts, or other problems.

Course Evaluation

You will receive a final course grade comprised of the weighted scores earned on all required course assignments and exams.

Methods: **% of final grade**

1. Participation(show up, in class discussion): 5%
2. Term Paper: 15%
3. Term paper presentation: 15%
4. Labs: 20%
5. Paper critiques: 15%
6. Final exam: 30%
   (12/11, Wednesday, 5:45-7:45pm)

   Total   100%

Grading scale:

90-100   A
80-89.9   B
70-79.9   C
60-69.9   D
Below 60   F

Re-grading policy: If you have questions about the way an assignment or exam is graded, you must detail the rationale for re-grading.

Late Submission of Assignments

You may discuss assignments with classmates but all solutions must be original and individually prepared.
You will lose 10% of the total points for an assignment for each 24-hour period (or fraction of a 24 hour period) the assignment is late. Late assignments will be accepted up to 4 days after the due date as specified in the assignment handout. Late penalty is accrued on weekends just as during the week. Partial credits will be given to students who turn in partially completed assignments.

Special considerations will be given for students who have a medical excuse for late submission (written proof of illness is required). These considerations may extend to medical emergencies involving children or other family members. Such consideration is at the discretion of the instructor, and will be as reasonable and fair as possible. Special consideration may also be given for employment conflicts (e.g. military duty, travel) if brought to the attention of the instructor **prior** to the due date for an assignment.

Course requirements for other courses are **NOT** a valid reason for special consideration.

Missed Exams

Missed quizzes cannot be made up. Missed exams can be made up only under extenuating circumstances such as medical emergencies and work conflicts as

mentioned above. Please see the instructor as soon as possible if you know you will be unable to attend an exam. You are expected to schedule your departure for any end of quarter travel after your final exam.

Plagiarism   Students are members of a learning community committed to the search for knowledge and truth. Essential to that search is the faithful adherence by all students to the highest standards of honesty and integrity. A grade of "0" or "F" will be assigned to examinations or assignments on which cheating, plagiarism or any other form of academic dishonesty is committed or determined to have occurred. For the detail, see Wright State University Student Handbook under "Academic Dishonesty".

Lecture Outline   The following is the **tentative** lecture contents and schedule.

Week	Topics/Activities	Text Reading
1	Supporting wireless technologies	Chapter 1
2	Supporting wireless technologies	Chapter 1
3	Wireless networks	Chapter 2
4	Wireless LAN	Chapter 5
5	Wireless application protocol	Chapter 4
6	Mesh networks	Chapter 7
7	Mobile IP and mobile IPv6	Chapter 10
8	Mobile IP and mobile IPv6	Chapter 11
9	Mobile security	Chapter 12
10	Mobile OS	references
11	Emerging wireless systems and wireless technologies: cognitive radio, SDR, WRAN, etc	references
12	Emerging wireless systems and wireless technologies: SDN etc	references
13	Project presentation	
14	Project presentation	
15	Project presentation and Final review	
16	Final exam	