204529 Wireless Local Area Networks 3(3-0)

1st semester 2009 (June – September)

Instructor Information

Instructor:	Assoc.Prof.Dr. Anan Phonphoem
Office:	Building 15, Room # 407, #710 (IWING Lab)
Office Hours:	Monday 11:00 – 13:00 (Walk-In) or by appointment
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Course Information

Lecture:	Thursday 6 – 9 PM Building 15, Room 507
Class URL:	http://www.cpe.ku.ac.th/~anan/
Prerequisite:	204325 Data Communication and Computer Networks
Course Description:	Introduction to wireless networks, Wireless Local Area Networks (WLANs), WLAN technologies, standards, and components, IEEE 802.11 standard, Wireless medium access control, Wireless Physical layer architecture, WLAN system design, integration and implementation, Related topics such as WPAN (Bluetooth) and WMAN (WiMax), Introduction to Mobile Adhoc Network and Sensor Network.
Course Objective:	Students become familiar with Wireless Local Area Network topics and some WLAN simulation tools. Students should understand the researches and be able to conduct further researches in the fields.
Text Book:	"แลนไร้สาย," อนันต์ ผลเพิ่ม, ซีเอ็ดยูเคชั่น, 2007, ISBN: 978-974-212-581-3
Supplement:	1. "**802.11 Wireless Networks**", *Matthew S.Gast*, O'Reilly & Associates, Inc., April 2002, ISBN 0-596-00183-5
	2. "**Wireless LANs: Implementing Interoperable Networks**," *Jim Geier*, Macmillan Technical Publishing, 2000, ISBN 1-57870-081-7
	3. **Standards** and **Recent related publications**

Grades

Midterm exam:	40 %
Final exam:	40 %
Project report & presentation:	10 %
HW and assignment:	10 %

Grading Policy

- Your Grade is based on the overall class performance.

- An "F" grade will be given to any form of cheating (for all parties).

- You are not allowed to take the exam (or quiz) if > 15 min late.

- Make-up exam will only be provided for restrict circumstances such as severe illness.

Assignment Policy

- All hard-copy assignments must be handed in at the beginning of the class (> 15 min. is considered late). For soft-copy will be timed by the local time stamp.

- No Late assignment will be graded.

- No credit for plagiarism and considered as cheating.

- No credit for copying assignment (for all copies) and considered as cheating.

Tentative Course Schedule

Week	Date	Description
1	Thu. Jun 11, 2009	Course orientation Intro. to Wireless Networks; Intro. to WLAN
2	Thu. Jun 18, 2009	WLAN Standards and Components
3	*Thu. Jun 25, 2009*	WLAN MAC Layer
4	Thu. Jul 02, 2009	WLAN Physical Layer
5	Thu. Jul 09, 2009	WLAN Security
6	Thu. Jul 16, 2009	WLAN Design and Implementation; KUWIN Case study
7	Thu. Jul 23, 2009	WLAN configuration (Hand-on and Demo)
8	Thu. Aug 06, 2009	Midterm Exam
9	Thu. Aug 13, 2009	Network Simulation
10	Thu. Aug 13, 2009	WLAN performance analysis
11	Thu. Aug 27, 2009	WPAN (Bluetooth & Zigbee)
12	Thu. Sep 03, 2009	WiMax
13	Thu. Sep 10, 2009	Intro. to Mobile Adhoc Network and Sensor Network
14	Thu. Sep 17, 2009	Student project presentation #1
15	Thu. Sep 24, 2009	Student project presentation #2
16	Thu. Oct 01, 2009	Final Exam