

# CSIS 7304 The Wireless Internet and Mobile Computing

## Summer 2006

- Instructor:** Dr. Ka-Cheong Leung
- Lectures:** Wednesdays 19:00 - 22:00,  
Theatre C, Chow Yei Ching Building (CYC)
- Prerequisite:** Basic understanding of computer systems and networking protocols
- Required Text:** *Mobile Communications*, Jochen Schiller,  
Addison Wesley, Second Edition, 2003.
- Reference Text:** *Wireless Communications and Networks*, William Stallings,  
Prentice Hall, Second Edition, 2005.
- Office:** CYC 518  
**Office Phone:** 2859 8481  
**Office Hours:** Wednesdays 18:00 - 19:00, or by appointment  
**E-mail:** kcleung@eee.hku.hk
- Teaching Asst.:** Mr. Wei Li  
Office: CYC 317  
Consultation: Thursdays 14:00 - 16:00, or by appointment  
E-mail: pwli@cs.hku.hk
- Class Web Page:** <http://www.cs.hku.hk/~c7304>  
**Class Newsgroup:** <news://news.cs.hku.hk/hku.cs.csis7304>

### Course Description

**Summary (subject to change):** The module offers students an opportunity to understand the principles and technologies behind data services in a wireless, mobile environment. It introduces the developing areas of mobile computing technology and applications. Topics include key features of 1G, 2G, and 3G mobile technology; wireless LANs; personal area networks and Bluetooth; ad hoc networks; mobile IP, DHCP, IPv6; TCP over wireless; proxy systems; web surfing and WAP; mobile file systems; privacy, authentication, security; mobility and location-dependent/personalized wireless applications.

<b>Grading Scheme:</b>	Assignments	9%
	Midterm Examination	26%
	Final Examination	65%

It is highly advised that you acquire a copy of the textbook for the class. Class notes are generally available from the class web page 1-2 days before the scheduled session of each lecture. Supplementary reading materials will also be posted to the course web page.

You are expected to attend every lecture. If you do happen to miss a session, you are responsible for finding out what material was covered and if any administrative announcements were made.

All assignments are submitted electronically via <http://msccs.cs.hku.hk/intranet2005/default.asp>. They shall be due at 19:00 on the designated due dates. Under normal circumstances, *no* extension will be granted. *No late assignments will be accepted for credit.*

There will be *no* make-up midterm and final examinations. The final examination will be held during the week of *21-26 August 2006*. The University Examinations Unit will determine its final schedule during the middle of the semester. If a student misses his/her final examination, it would be resolved according to the regulation mandated by the University Examinations Unit.

All of your work submitted for credit *must* be done on your own. Work or ideas developed by someone else *must* be properly cited in your coursework, or it is considered plagiarism. When scholastic dishonesty is suspected, the case will be reported to the University Disciplinary Committee. *Strict adherence to this Academic Integrity Policy is expected.*

**Tentative Schedule:<sup>1</sup>**

Date	Topics/Events	Assigned Readings
21 June 2006	Wireless Transmission Basics	Ch. 1 - 2
28 June 2006	Medium Access Control	Ch. 3
5 July 2006	Assignment 1 Due at 19:00	N/A
5 July 2006	GSM and UMTS	Ch. 4.1, 4.4
12 July 2006	Midterm Examination at 7-9 p.m.	N/A
19 July 2006	Wireless LANs	Ch. 7.1 - 7.3, 7.5
26 July 2006	Assignment 2 Due at 19:00	N/A
26 July 2006	Mobile IP and DHCP	Ch. 8.1 - 8.2
2 August 2006	Mobile Transport Layer	Ch. 9, supp. readings
9 August 2006	Assignment 3 Due at 19:00	N/A
9 August 2006	Support for Mobility	Ch. 10.1 - 10.3

---

<sup>1</sup>This schedule will be adjusted as the semester progresses. It is the students' responsibility to keep apprised of any changes.