

3G Mobile Systems

Instructor: Dr. Yufei Wu
Class Schedule: Monday 5:30 – 8:30
Location: Programming Lab
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Course URL: www.u.tt/ict

This graduate course provides a comprehensive introduction to basic principles and techniques of next generation mobile communications systems. Topics include radio link performance, bandwidth efficiency, channel structures, mobility management, radio resource management, mobile network planning and optimization, for both GSM and 3G.

Assessment

Class Participation	20%
In-class Quiz	30%
Final Project	50%

Reference Material

- Wireless Communications: Principles and Practice, 2nd edition, Theodore S. Rappaport
- Mobile Communications Engineering: Theory and Applications, 2nd edition, William C. Y. Lee

Course Schedule

Date	Topics and Reading
Week 1, Sept. 8	GSM
Week 2, Sept. 15	Spread spectrum and WCDMA
Week 3, Sept. 22	Spectrum efficiency, coverage, capacity
Week 4, Sept. 29	3G network planning and optimization