Tamkang University Academic Year 109, 2nd Semester Course Syllabus

Course Title	WIRELESS LOCAL AREA NETWORKS	Instructor	MENG-LUEN WU
Course Class	TEIBM1A MASTER'S PROGRAM, DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM),	Details	◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	1A SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Cultivate the ability to conduct independent research and problem solving.

Ⅱ. Strengthen creativity and research capacity.

Ⅲ. Build profound professional knowledge in computer science and information engineering.

Ⅳ. Engage in self-directed lifelong learning.

Subject Departmental core competences

D. Research & development (R&D) ability in information engineering.(ratio:100.00)

Subject Schoolwide essential virtues

2. Information literacy. (ratio:100.00)

Course Introduction	Wireless local area network (WLAN) is the implementation of IEEE 802.11 protocols. The purpose of the protocol is to realize wireless communication and solve the related issues. In this course, we focus on the issues. To realize the theories in this course, we will conduct a wireless LAN related experiment in the end of the semester.

The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of
the course's veracity, conception, procedures, outcomes, etc.

II.Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal,
morals, attitude, conviction, values, etc.

III.Psychomotor: Emphasis upon the study of the course's physical activity and technical
manipulation.

No.	Teaching Objectives	objective methods
1	Understand the IEEE 802.11 protocols and implement the concepts in the protocols.	Cognitive

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	D	2	Lecture, Discussion, Experience	Testing, Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	110/02/22 ~ 110/02/28	Introduction to WLAN	
2	110/03/01 ~ 110/03/07	Overview of WLAN Topologies	
3	110/03/08 ~ 110/03/14	802.11 Medium Access Mechanisms	
4	110/03/15 ~ 110/03/21	802.11 MAC Frame Formats	
5	110/03/22 ~ 110/03/28	802.11 Management Frame Fields and Elements (1)	
6	110/03/29 ~ 110/04/04	802.11 Management Frame Fields and Elements (2)	
7	110/04/05 ~ 110/04/11	802.11 Physical Layer Technologies	
8	110/04/12 ~ 110/04/18	802.11 Wireless LANs (1)	
9	110/04/19 ~ 110/04/25	802.11 Wireless LANs (2)	
10	110/04/26 ~ 110/05/02	Midterm	
11	110/05/03 ~ 110/05/09	802.11 Wireless LAN Security	

12	110/05/10 ~ 110/05/16	Roaming in 802.11	
13	110/05/17 ~ 110/05/23	QoS for 802.11 Wireless LANs—802.11e	
14	110/05/24 ~ 110/05/30	Radio Frequency Essentials	
15	110/05/31 ~ 110/06/06	Deploying Wireless LANs	
16	110/06/07 ~ 110/06/13	WLAN Design Considerations	
17	110/06/14 ~ 110/06/20	WLAN Experiment	
18	110/06/21 ~ 110/06/27	Final Exam	

Requirement	
Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	
References	
Number of Assignment(s)	2 (Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 10.0 % ◆ Mark of Usual：30.0 % ◆ Midterm Exam： 25.0 % ◆ Final Exam： 25.0 % ◆ Other〈Experiment〉：10.0 %
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php . ※ **Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**