Tamkang University Academic Year 113, 2nd Semester Course Syllabus

Course Title	INTRODUCTION TO COMPUTER NETWORK	Instructor	TENG YU KUANG
Course Class	TKFXB1C DEPARTMENT OF ARTIFICIAL INTELLIGENCE, 1C	Details	◆ General Course ◆ Required ◆ One Semester ◆ 3 Credits
Relevance to SDGs	SDG1 No poverty SDG2 Zero hunger SDG4 Quality education SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Students may analyze problems in applied science based on the fundamental knowledge of programming, mathematics, and artificial intelligence.

Ⅱ. Students may plan and implement an AI system following the procedures of problem analysis, experiment testing, data visualizing, derivation and deduction.

Ⅲ. Educate the students to be AI engineers who may accomplish their missions indepedently and may collaborate with their colleagues in the workplace.

Ⅳ. Students may have basic skills and global competence for career diversification, and may keep lifelong learning.

Subject Departmental core competences

A. Professional analysis.(ratio:20.00)

B. Practical application.(ratio:30.00)

C. Professional attitude.(ratio:30.00)

D. Global Mobility.(ratio:20.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:15.00)

2. Information literacy. (ratio:20.00)

3. A vision for the future. (ratio:15.00)

4. Moral integrity. (ratio:20.00)

5. Independent thinking. (ratio:10.00)

6. A cheerful attitude and healthy lifestyle. (ratio:5.00)

7. A spirit of teamwork and dedication. (ratio:10.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction	it's our aim in this book to provide you with a modern introduction to the dynamic field of computer networking, giving you the principles and practical insights you'll need to understand not only today's networks, but tomorrow's as well

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	Today's Internet is arguably the largest engineered system ever created by mankind, with hundreds of millions of connected computers, communication links, and switches; with billions of users who connect via laptops, tablets, and smartphones; and with an array of new Internet-connected "things" including game consoles, surveillance systems, watches, eye glasses, thermostats, body scales, and cars.	Psychomotor
2	We emphasis upon the study of computer networking knowledge.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCD	12345678	Lecture, Discussion, Practicum	Testing, Discussion(including classroom and online), Report(including oral and written)

2	ABCD	12345678	Lecture, Discussion	Testing, Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	114/02/17 ~ 114/02/23	What Is the Internet?	
2	114/02/24 ~ 114/03/02	What is a Protocol?	
3	114/03/03 ~ 114/03/09	Application Layer	
4	114/03/10 ~ 114/03/16	Principles of the network application	
5	114/03/17 ~ 114/03/23	Transport Layer	
6	114/03/24 ~ 114/03/30	UDP, TCP	
7	114/03/31 ~ 114/04/06	Network Layer: Data plane	
8	114/04/07 ~ 114/04/13	Router, IP, SDN	
9	114/04/14 ~ 114/04/20	Midterm Exam/Midterm Assessment Week (teachers can adjust the week as needed)	
10	114/04/21 ~ 114/04/27	Link Layer and LANs	
11	114/04/28 ~ 114/05/04	Link Layer and LANs	
12	114/05/05 ~ 114/05/11	Multiple Access Links and Protocol	
13	114/05/12 ~ 114/05/18	Wireless and Mobile Network	
14	114/05/19 ~ 114/05/25	802.11 wireless LANs	
15	114/05/26 ~ 114/06/01	Security in Computer Networks	
16	114/06/02 ~ 114/06/08	Cryptography	
17	114/06/09 ~ 114/06/15	Final Exam/Final Assessment Week (teachers can adjust the week as needed)	
18	114/06/16 ~ 114/06/22	Flexible Teaching Week: Generally, no in-person classes; teachers may arrange teaching activities or final assessments, among other options.	
Key capabilities		Information Technology Problem solving Interdisciplinary	

Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)
Distinctive teaching	Special/Problem-Based(PBL) Courses
Course Content	Computer programming or Computer language (students have hands-on experience in related projects) Environmental Safety
Requirement	
Textbooks and Teaching Materials	Self-made teaching materials:Presentations Using teaching materials from other writers:Presentations
References	
Grading Policy	◆ Attendance： 10.0 % ◆ Mark of Usual：20.0 % ◆ Midterm Exam： 30.0 % ◆ Final Exam： 40.0 % ◆ Other 〈 〉： %
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.**