

Standardized Syllabus for the College of Engineering

CNT 5106C Computer Networks

1. Catalog Description (3 credit hours)

The course covers the design, implementation and internals of modern computer networks. While all layers will be introduced, the layers below the Application Layer will be the main focus. The main effort will be spent on the design issues for Transport Layer, Network Layer, Data-Link and MAC Layer, and other related topics.

2. Pre-requisites and Co-requisites

Basic operating system knowledge. You should be able to write simple programs in Java or C/C++. Calculus at the level of MAC 2312 and basic probability at the level of STA 2023.

3. Course Objectives

This is an introductory course on computer networks at the graduate level. We will focus on the concepts and fundamental design principles that have contributed to the global Internet's scalability and robustness and will survey the underlying technologies --- e.g., HTTP, DNS, TCP/IP Protocols, Ethernet, and routers --- that have led to the Internet's phenomenal success.

Topics include: application to link layer protocols, congestion/flow/error control, routing, addressing, multicast, packet scheduling, switching, internetworking, network security (possibly), multimedia networks, wireless networks and networking programming interfaces. We will also cover recent development in overlay and peer-to-peer networks.

We will cover nearly all material in Kurose and Ross' book chapter 1 through 7. We may also cover chapter 8.

4. Contribution of course to meeting the professional component (ABET only – undergraduate courses)

N/A

5. Relationship of course to program outcomes: Skills student will develop in this course (ABET only undergraduate courses)

N/A

6. Instructor: Ye Xia

a. Office: E538 CSE

b. Telephone: 352-450-6270

c. Email: yx1@cise.ufl.edu

d. Class Web site: <http://www.cise.ufl.edu/~yx1/>

e. Office hours: Friday 1-3 pm

7. Teaching Assistant (To be determined; see course web site)

a. Office location

- b. Telephone
- c. E-mail address
- d. Office hours

8. Meeting Times

Tues. 1:55 - 2:45 pm (period 7)

Thurs. 1:55-2:45 pm & 3:00-3:50 pm (period 7 and 8)

9. Class/laboratory schedule, i.e., number of sessions each week and duration of each session

N/A

10. Meeting Location

201 NEB

11. Material and Supply Fees

N/A

12. Textbooks and Software Required

Computer Networking - A Top-Down Approach Featuring the Internet. James F. Kurose and Keith W. Ross. 5th edition, 2009.

13. Recommended Reading (see 12 above)

See course web site.

14. Course Outline (provide topics covered by week or by class period)

See course web site.

15. Attendance and Expectations (is attendance required, penalties for absence, tardiness, cell phone policy, etc.)

Required.

16. Grading – methods of evaluation

Homework Assignments (10%): If you miss homework assignments, you will not be considered for course grade upgrade if you are on the borderline.

Project (30%): The mid-project checkpoint is worth 5% and the final project is 25%.

Midterm (30%)

Final Exam (30%)

17. Grading Scale (e.g., 90-100 A, 85-89 B+, 80-84 B, etc.) If grades are to be curved, so state. Values should not overlap and the full grade to percentage/points map must be included.

Curved.

This statement must be included in every grade scale for 5000 level graduate syllabi:

“Undergraduate students, in order to graduate, must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. Graduate students, in order to graduate, must have an overall GPA of 3.0 or better (B or better). Note: a B- average is equivalent to a GPA of 2.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

18. Make-up Exam Policy

Consult the instructor.

19. Honesty Policy – All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

20. Accommodation for Students with Disabilities – Students Requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

21. UF Counseling Services –Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

22. Software Use – All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.