WILMINGTON UNIVERSITY  
COLLEGE OF TECHNOLOGY  
BASIC COURSE INFORMATION

COURSE TITLE: Internet Foundations  
COURSE NUMBER: WIS 200

All courses are open to students from all colleges. Only where a course is preceded by an introduction course is there a need to observe a prerequisite. However, students might benefit from prior knowledge on some of the courses, and this is given as the content found in your course catalogue by course code.

I. MAJOR INSTRUCTIONAL GOALS

During this course, students should improve their understanding of:

GOAL #1: Students will develop an understanding of Network Technologies associated with web application development.

Learning Outcomes - The student will understand the following:
A. the physical aspects of networks, including routers, switches, hubs, and gateways.
B. local area and wide area networks (LANs, WANs)
C. routing, domain name service (DNS), and addressing
D. circuit switching and packet switching
E. Dynamic Host Configuration Protocol (DHCP)
F. Network Address Translation (NAT)

GOAL #2: Students will develop a thorough understanding of current networking topologies commonly used in web application development.

Learning Outcomes - The student will understand:
A. backbones
B. autonomous systems (AS)
C. star topology

GOAL #3: Students will understand the bandwidth requirements of web based applications.

Learning Outcomes - The student will understand:
A. Round Trip Time (RTT)
B. Sources of response time delays.

GOAL #4: Students will understand the many security risks associated with the networking aspect of web applications.

Learning Outcomes - The student will develop a basic familiarity with:
A. attacks and countermeasures
B. basic principles of cryptography
C. authentication
D. firewalls
E. data integrity
F. key certification
G. Secure Socket Shell (SSH)
GOAL #5: Students will understand Internet services.

Learning Outcomes - The student will understand:

A. File Transfer Protocol (FTP)
B. HyperText Transfer Protocol (HTTP and HTTPS)
C. email access protocols, including Simple Mail Transport Protocol (SMTP)
D. reliable transport protocols (TCP)
E. best effort protocols (UDP)

II. CLASS PARTICIPATION:

Students are expected to attend class and participate actively and in a positive way. Questions and relevant observations are encouraged and enrich the experience of the entire class.

Computers in the classrooms are intended to be used as tools to enhance the students’ learning experience. Instant messaging, gaming, emailing, and surfing the web are distractions to the student, the surrounding students, and the instructor and constitute inappropriate behavior. Students are ethically obliged to avoid these and similar practices.