



INTERNET FOUNDATIONS (EECS 498)

Prerequisites: Sophomores and above

Credit hours: 2

Grading basis: PASS/FAIL

Time/Room: MW 1:30-2:30pm, Room 2153 GGBL

Professor Mohammed N. Islam (mni@umich.edu)

This course introduces students to the fundamentals of the internet. You use the internet every day, and in this course we permit you to “look under the hood” to see the basics of how the internet works. *The course is specifically intended for students who do not specialize in computers or computer science.* We start by reviewing the differences between various applications, such as world wide web, skype, and Bit-Torrent. The 4-layer internet model will be explained, which includes the application, transport, network and link layers. Application layer examples include WWW, HTTP, email, DNS and P2P Applications. The two most commonly used Transport Layer protocols are TCP and UDP. The Internet uses IP as the Network Layer, and routers perform the IP layer functions. The Link Layers used most commonly include Ethernet (wired) and IEEE 802.11 or WiFi (wireless). Other topics covered briefly include Wireless and Mobile Networks, Software Defined Networks, Data Center Networks and Network Security. **By taking this course you will have a better appreciation of how computer networks work and how your computer communicates over the internet.**

