Lecture 1

* Routing
  + Paths
* Data Links – physical layer
  + Between 2 nodes (error detection, etc.)
* Narrow physical layer restriction:
  + Need to send data in small bits
* DNS – directory service -> name to ip address
* Network header
  + Routing info (all intermediary routers)
* Data link header
  + Only info about next router
* Physical layer
  + No header, splits DPDU (?) (frame) into bits
* At destination node, data link header is taken off, then the network header. Then, it sees final destination is this router and proceeds to take off other headers
* Data links – fiber, wireless, cable, Bluetooth, etc.
* TCP vs. UDP transport layer
  + UDP – no resending/retransmission
  + TCP – more reliable
* TCP abstraction
  + Sender and receiver have 2 connected queues and data reliably is sent from sender to receiver queue. No packets.
  + Uses data link to send packets between 2 routers, which sends bits at physical layer