route and netstat

- Look at your routing table and routing cache
  - What is the difference?
- Look at the list of TCP connections, and other open sockets
- View statistics of your network interfaces
- View statistics of your IP software
- What does the "-n" option do?

  Files: /etc/network/interfaces, /etc/services, /etc/hosts, /etc/protocols, /etc/resolv.conf, /var/lib/dhcp3/*.leases

ARP

- What is ARP (the protocol) used for?

- Learn how ARP works by:

  - Capturing some ARP traffic
  - Drawing packet formats, sequence diagrams
  - Using the **arp** command

- Ping: Why does the first packet take more than others?

DHCP

- What is DHCP used for?

- Learn how DHCP works by:
  - Using the **dhclient** command
  - Capturing some DHCP traffic
  - Drawing network topology diagram
  - Drawing packet formats, sequence diagrams
  - Viewing **dhclient.leases**

- What information can DHCP server send to client?

File Transfer

- Use **ssh** to login to another computer
- Use **nc** to copy a file to another computer
- Use **scp** to copy a file to another computer

ARP

- Can ARP be used for Data Link protocols other than Ethernet?

- Can ARP be used for Network protocols other than IP?

- How long does your computer store an entry in the ARP cache?

- Can you manually add entries to the ARP cache?