

# CSCD 330 - Computer Networks

## Lab 1, Tool scavenger hunt

### Instructions:

The command line tool `man` is your friend. Use `man` and the Internet to answer the following questions. **Do not** copy the explanation of `man` for your answers, but use it as a guide to run the tool and find out what it's doing.

### Questions:

1. What does `ping` do, how do you know?
2. How could `ping` be useful?
3. What does `dig` do?
4. What does `nslookup` do?
5. Do `dig` and `nslookup` tell you any of the same information? If so, what?
6. What is a domain name?
7. What is a DNS server?
8. What DNS server does your machine use?

9. How would you change this DNS server from the command line on a Linux machine?
10. What is `wireshark`?
11. What is `traceroute`?
12. What is the difference between running `traceroute` with `-T` vs `-I`?
13. What is `whois`?
14. What is RFC 3912?
15. On the topic of RFCs, what is an RFC?
16. Use `nslookup` and `dig` on the same domain (e.g., `google.com`). Do they return the same IP address? What happens when you put the IP address(es) in the address bar of your browser?
17. Explain the output of the command `ip a`?
18. What is `tcpdump`?
19. Is there anything specific you want to learn about networks? If so, what? If not, what do you hope to get out of this class?
20. Tell me something about yourself.

21. Do you have any prior experience with Linux, the terminal, or Python? If so, how much?