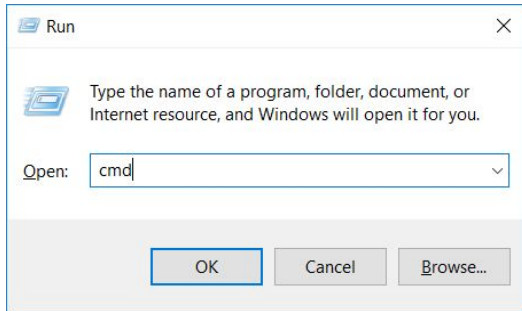


Schedule for the day:

Introduction, housekeeping, pre-test	10:00-10:30	(:30)
Plans, policies and manuals	10:30-11:15	(:45)
Hardware, software, and troubleshooting	11:15-12:00	(:45)
Lunch	12:00-1:00	(1:00)
Internet and database searching	1:00-3:00	(2:00)
Apps & social media	3:00-3:45	(:45)
Wrap-up and post-test	3:45-4:30	(:45)

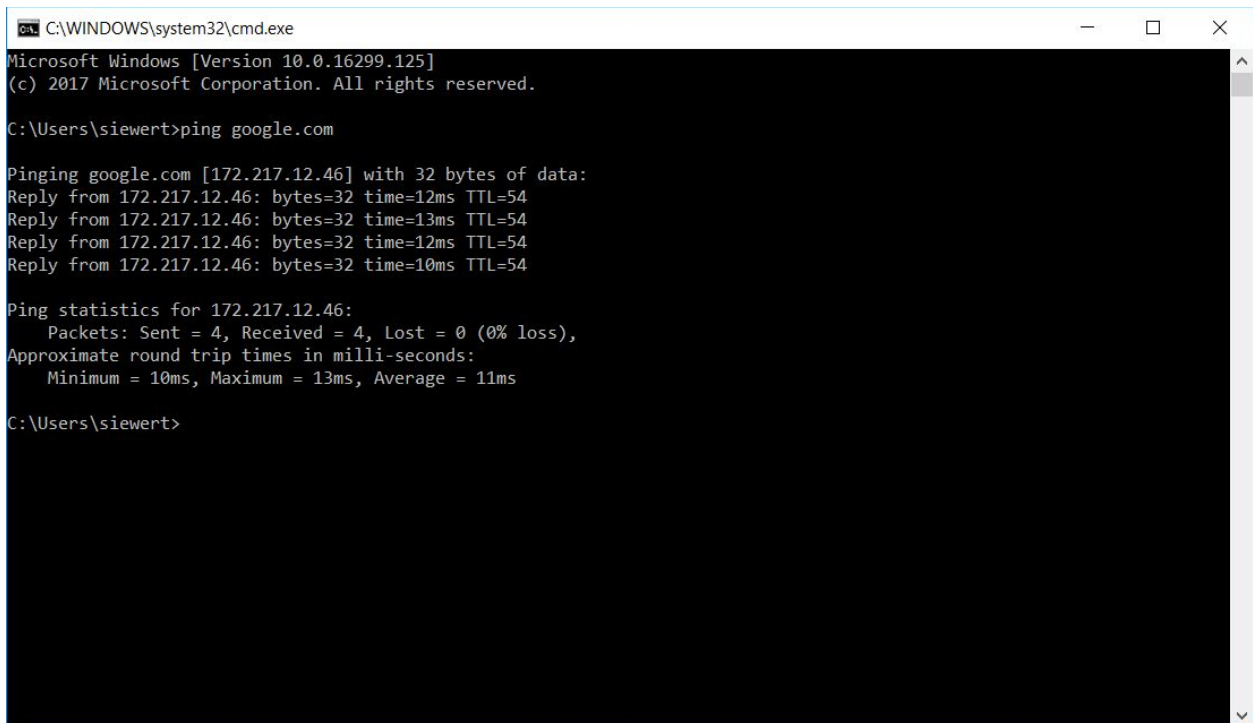
Find course links at http://bit.ly/C_ER.

Accessing the command prompt console and running "ping" and "ipconfig".



Hit Win+r to bring up the "Run" dialog. Type "cmd" and hit Enter.

In the command console that opens, type in "ping" followed by a known domain name.

A screenshot of a Windows Command Prompt window. The title bar shows 'C:\WINDOWS\system32\cmd.exe'. The window content shows the following text:

```
Microsoft Windows [Version 10.0.16299.125]
(c) 2017 Microsoft Corporation. All rights reserved.

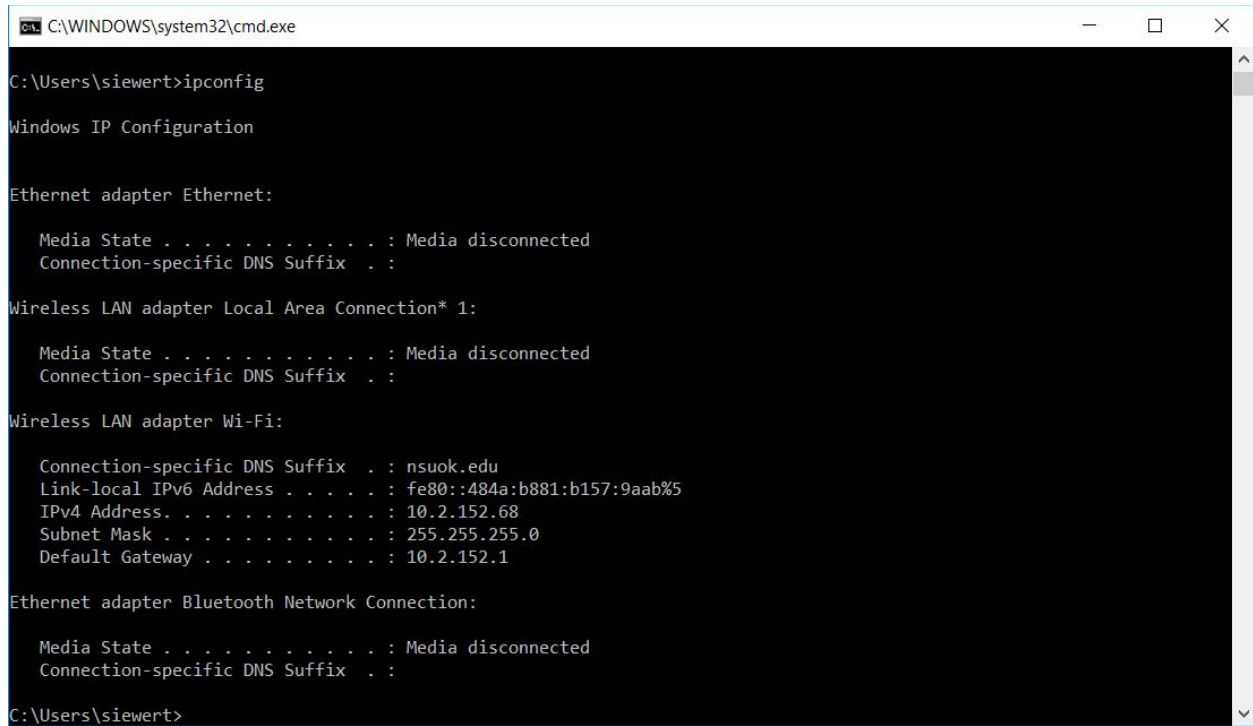
C:\Users\siewert>ping google.com

Pinging google.com [172.217.12.46] with 32 bytes of data:
Reply from 172.217.12.46: bytes=32 time=12ms TTL=54
Reply from 172.217.12.46: bytes=32 time=13ms TTL=54
Reply from 172.217.12.46: bytes=32 time=12ms TTL=54
Reply from 172.217.12.46: bytes=32 time=10ms TTL=54

Ping statistics for 172.217.12.46:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 13ms, Average = 11ms

C:\Users\siewert>
```

If ping is unsuccessful, do the same with "ipconfig" (no domain name needed). Make a note of the resulting information. This can be useful to share with IT personnel.



```
C:\WINDOWS\system32\cmd.exe
C:\Users\siewert>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . :

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix . : nsuok.edu
    Link-local IPv6 Address . . . . . : fe80::484a:b881:b157:9aab%5
    IPv4 Address. . . . . : 10.2.152.68
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.2.152.1

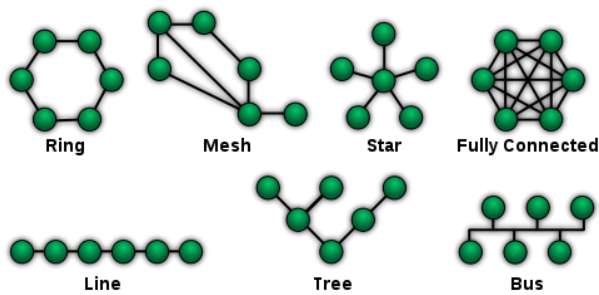
Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . :

C:\Users\siewert>
```

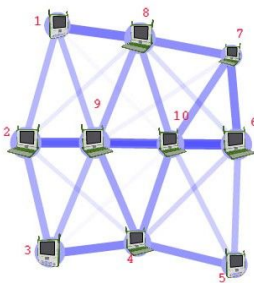
When finished with the console, type "exit" to end.

A Brief History of the Internet



Beginning in the 1950s, scientists and computer engineers began connecting computers together in "Local Area Networks" or LANs. These allowed computers and other devices like printers to talk to one another, but only in a limited way, and any connection had to involve a single unbroken wire.

In 1960, airlines began using the SABRE reservation system, connecting multiple computers using standard telephone lines. This was the first significant "Wide Area Network", or WAN. [Image¹]



At the end of the 1960s, the Defense Advanced Research Projects Agency (DARPA) developed ARPANET, which used a technology called "packet switching" to make networks more robust. A packet of data could be sent from one network node to another using any route, and dropped packets could be re-sent until they were successful. This system was designed to survive catastrophic events and still allow communication. It was never designed to be fast.

In the 1980s, scientists wishing to share large data sets and images developed the World Wide Web [Image²]



¹ By Source, Fair use, <http://www-03.ibm.com/ibm/history/ibm100/us/en/icons/sabre/transform/>

² By Source, Fair use, <https://www.pawprint.net/glossary/term/63/NCSA-Mosaic/>

Matrix for search comparison

	# of results	Sort/ Organization	Types of Information	Notes
Google				
Google Scholar				
Academic Search Elite				
GreenFILE				