# CYSE 270: Linux System for Cybersecurity

## Lab 11 – Basic Network Configurations

You can use either **Ubuntu VM** or **Kali Linux VM** to complete the following tasks.

## Task A – Explore Network Configurations (8 * 5 = 40 Points)

**{{{{{{{{{Connect your VM in the NAT mode}}}}}}}}}**

1. Use the correct **ifconfig** command to display the current network configuration. **Highlight your IP address, MAC address, and the network mask**.

2. Use the correct **route** command to display the current routing table.

3. Use the **netstat** command to list current TCP connections.

4. Use the **ping** command to determine if the ubuntu.com system is accessible via the network. (Use the correct option to send 10 ping requests only.)

5. Use the **host** command to perform a DNS query on www.odu.edu

6. Use the **cat** command to display the contents of the file that contains the system's hostname.

7. Use the **cat** command to display the contents of the file that contains the DNS servers for this system.

8. Edit the same file you display in the previous step, set the system's hostname to your MIDAS ID permanently. Reboot system and **repeat step 6**.

## Task B – A Different Network Setting (3 * 20 = 60 Points)

1. Change the VM network connection from NAT to the bridge mode (you will lose your Internet connection if you are connected to the ODU campus Wi-Fi network, but it is okay).
2. Reboot your system, then repeat Steps 1 – 7 in Task A.
3. Highlight the differences at the end of each step and discuss what do you find.

☑ Enable Network Adapter

Attached to: NAT

Name:

▷ Advanced

NAT
Bridged Adapter
Internal Network
Host-only Adapter
Generic Driver
NAT Network
Cloud Network [EXPERIMENTAL]
Not attached