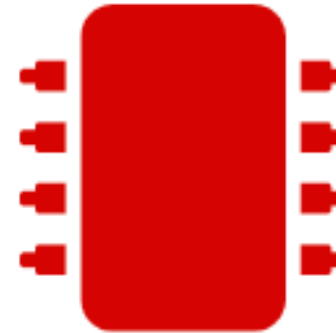




# Welcome!!



---

THURSDAY 23<sup>RD</sup> MAY, 2024

# Computer Systems & Networks

---

Caroline Cahill

[caroline.cahill@setu.ie](mailto:caroline.cahill@setu.ie)



**Caroline Cahill**  
Caroline Cahill

Dr Frank Walsh

[frank.w.walsh@setu.ie](mailto:frank.w.walsh@setu.ie)



**Frank Walsh(Lecturer)** ○  
Frank Walsh

# Computer Systems & Networks

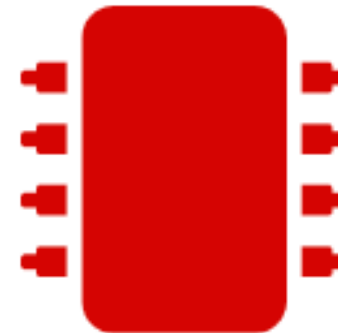
---

10 Credit

Module delivery split between Frank & Caroline

Timetabled for TWO sessions per week

Computer  
Systems &  
Networks



# HDIP 24

Semester 2  
2024

## Computer Systems & Networks



logic · computer  
organisation · os · networks  
· interfaces · sensors

## Database



entities · tables · rows · sql  
· er · nosql

2024		S	M	T	W	T	F	S	Modules
Semester 2									
September									
	1	1	2	3	4	5	6	7	comp sys & database
	2	8	9	10	11	12	13	14	comp sys & database
	3	15	16	17	18	19	20	21	comp sys & database
	reading-week	22	23	24	25	26	27	28	
October									
	4	29	30	1	2	3	4	5	comp sys & database
	5	6	7	8	9	10	11	12	comp sys & database
	6	13	14	15	16	17	18	19	comp sys & database
	reading-week	20	21	22	23	24	25	26	
November									
	7	27	28	29	30	31	1	2	comp sys & database
	8	3	4	5	6	7	8	9	comp sys & database
	9	10	11	12	13	14	15	16	comp sys & database
	reading-week	17	18	19	20	21	22	23	
	10	24	25	26	27	28	29	30	comp sys & database
December									
	11	1	2	3	4	5	6	7	comp sys & database
	12	8	9	10	11	12	13	14	comp sys & database
		15	16	17	18	19	20	21	
		22	24	24	25	26	27	28	
January									
		29	30	1	2	3	4	5	

# Weekly Webinar Schedule

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
10:45						10:45
12:15						12:15
2:00						13:45

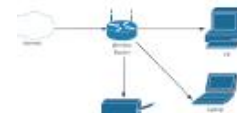
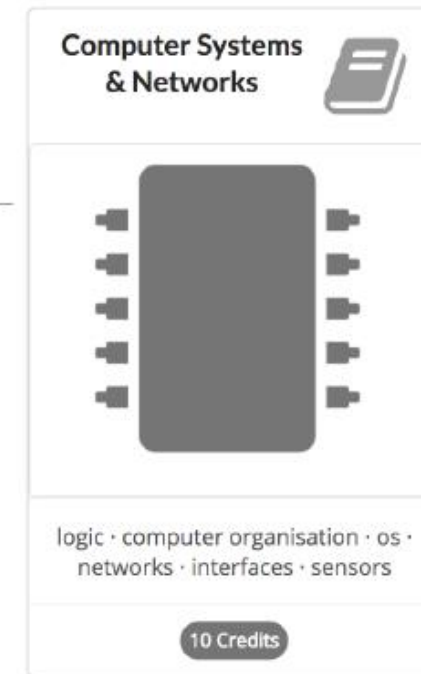
Computer Systems Webinar  
12:15-2:00

Computer Systems Webinar  
12:15-2:00

Database Webinar  
2:15-2:00

# Module Overview: (Available on Handbook)

- Number bases used in Computer Science
- Boolean logic
- Computer system architecture
- Operating systems: Components, services, and utilities
- Memory and file management
- Scripting and shell programming
- Virtualisation and hypervisors
- Internet protocol suite
- Physical/network addressing
- Transport layer protocols
- Application layer protocols
- Wireless network protocols: LAN and PAN



# Development Tech (tentative)

---



```
#!/bin/bash
# This is a basic bash script.
a=Hello
b="Good Morning"
c=16

echo $a
echo $b
echo $c
```



## Build Your Skills With Cisco

Pursue real career paths through instructor-led courses taught by experts and free, online courses backed by Cisco's expertise.



# Cisco NetAcad

---

YOU WILL COMPLETE UP  
TO AND INCLUDING  
MODULE 11



## Welcome to NDG Linux Essentials!

 [Front Page](#)

This course aligns to the Linux Professional Institute (LPI) Linux Essentials Professional Development Certificate. To learn more about this certificate, visit [LPI.org](https://www.lpi.org) ([Links to an external site.](#)).

**To Get Started:**

1. Click on a course activity under a Module below.
2. Check the box to accept Terms and Conditions, click **Submit**.
3. Close the Terms and Conditions window (or tab), refresh the previous window (or tab), and reload the activity.

**Need Help?**

Click on the **Help & Resources** module below for Frequently Asked Questions. Please ensure you have read the course FAQ completely before contacting NDG Online Support.

NDG Linux Essentials Version 2.21 (ILT)



**N** Help & Resources

## Before You Get Started

## N Before You Get Started

## Module 1 - Introduction to Linux

**N** Chapter 1

Find answers to many of your Networking Academy questions:

NetAcad Virtual Assistant

## Module 1 - Introduction to Linux

**N** Chapter 1

## Module 2 - Operating Systems

**N** Chapter 2

**N** Chapter 02 Exam

## Module 3 - Working in Linux

**N** Chapter 3

## N Chapter 03 Exam

## Module 4 - Open Source Software and Licensing

**N** Chapter 4

**N** Chapter 04 Exam

## Module 5 - Command Line Skills

**N** Chapter 5

**N** Lab 05

**N** Chapter 05 Exam

## Module 6 - Getting Help

**N** Chapter 6

**N** Lab 06

**N** Chapter 06 Exam

## Module 7 - Navigating the Filesystem

**N** Chapter 7

**N** Lab 07

**N** Chapter 07 Exam

## Module 8 - Managing Files and Directories

**N** Chapter 8

**N** Lab 08

## N Chapter 08 Exam

# Using Linux

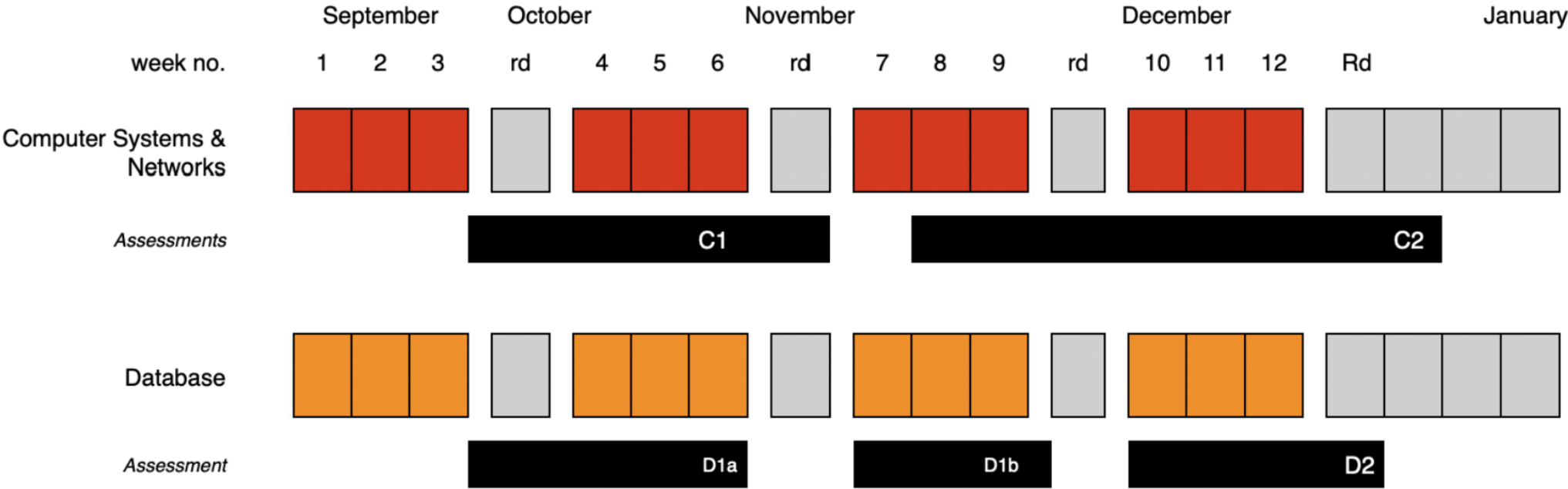
You could use any emulator/any virtualiser software & then install Linux on top of this

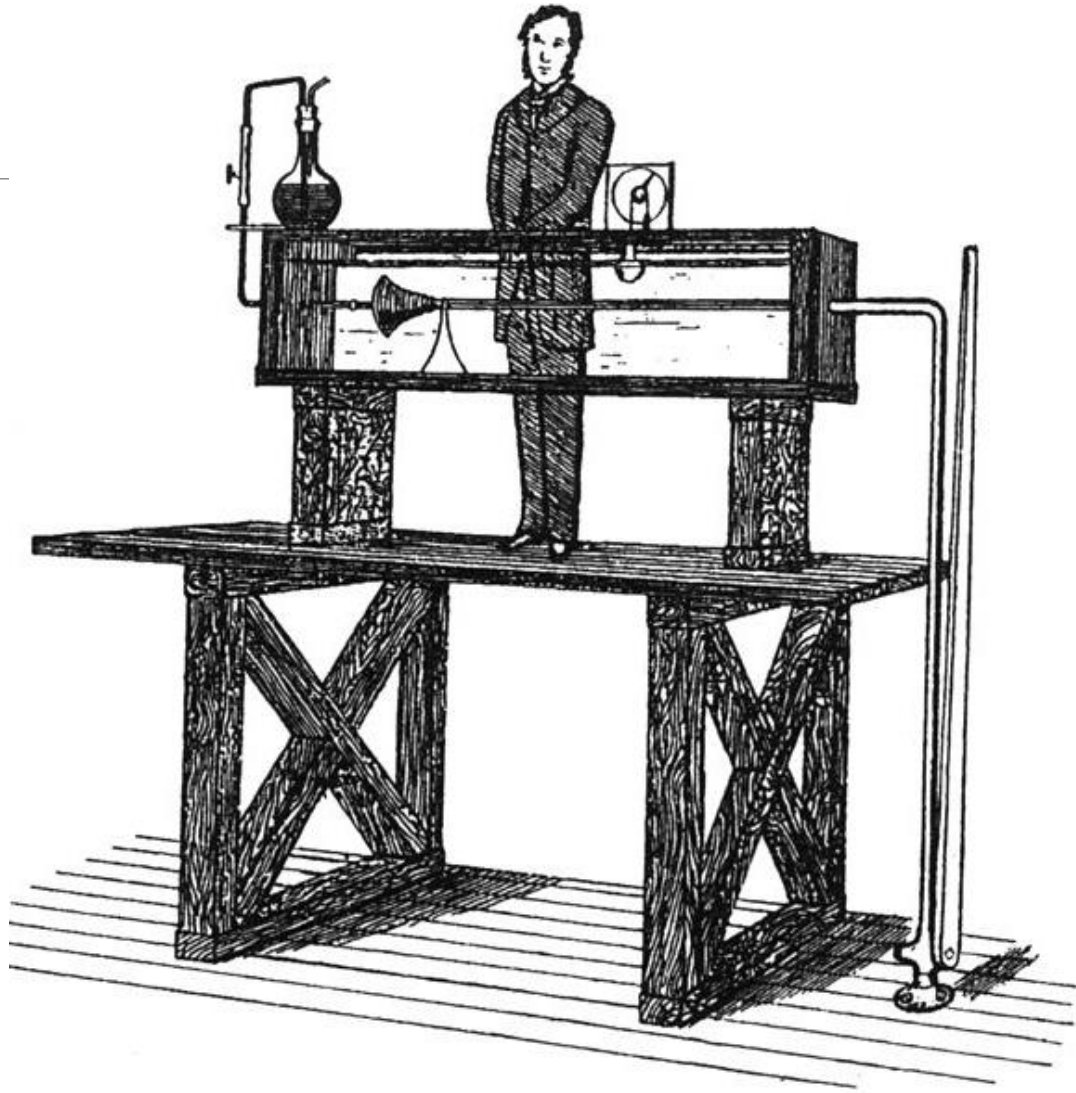
(= keeps your Linux completely separate from your work system)

- ❖ You could install [VirtualBox](#) & then install **Lubuntu** onto this  
VirtualBox also won't install on a M1/M2 chip as they removed support for it
- ❖ You can use a UTM virtualiser (was created for macOS & only for Apple platforms)
- ❖ You can install Lubuntu on a Raspberry Pi (the SD card will hold everything)
- ❖ You can use [WSL](#) (windows subsystem for linux)
- ❖ If using a Mac, the standard Mac terminal will be perfect  
NOTE: If you use the mac terminal then you are working and making changes to your actual OS

*My screenshots in the notes will be taken off my own Lubuntu that I've installed in VirtualBox*

# Semester 2 Assessment Schedule





# Ethos

Focus on practical skills

Good idea to stay current with module:

- Some lectures will require reading/viewing of talks before.

Experiment/build something interesting:

- You will have the opportunity to propose your own assignment!



Which will you use?

---