

Advanced Computer Class

Semester 1

Advanced Computer Operations

Software

1. Introduction

What this class will be about and how to use online resources for this class.

2. Operating Systems

Linux, Macintosh and Windows Operating systems, similarities and differences.

3. Networking

Basics of Local and Wide area networks.

4. Services and Connections

Introduction to the services that run on the networks that make up the internet.

5. System Identification

How to gather information on remote computers.

6. Malware

How to identify and remove malware.

7. Attack Analysis

Identifying and detecting network access.

8. Forensics

Methods of recreating what has happened on a digital device.

9. Email Security

How to use email safely.

10. Security and Privacy

Recognizing the limits of privacy and security on the internet.

11. Passwords

Types of passwords and how they are compromised.

12. Legalities and Ethics
13. Rights, crimes and ethics.

Hardware

1. Troubleshooting

Basic troubleshooting of hardware problems.

2. System Building

Researching, buying and assembling a computer from its component parts.

Semester 2

Content Creation

1. Introduction

Understanding what computers do best

2. Lego Robotics

Simple programming and problem solving using the NXT system.

3. Web Content Creation

Creating websites using html editors, web editors and online resources.

4. Game Creation

Creating video games and levels using online tools and tools provided on game consoles.