



# LEVEL 1

FRANKYS FOUNDATION

PHONE AND LAPTOP REPAIR TRAINING SYLLABUS





# PHONE REPAIR SYLLABUS

## GENERAL OBJECTIVES

By the end of the course, the learner should be able to:

1. Repair Mobile phones and use different equipment/tools
2. Use of Soldering Iron and dedicated tools
3. Mobile Phone Disassembly processes
4. Basic Part replacement and common repairs
5. Tech Accurate Fault Finding
6. Repair Water Damaged Mobile Phones
7. Marketing / Marketing Resources
8. Learn skills in Pricing Phone Repairs, Business Management smartphone repair, screen replacement, Mobile phone Flashing & Unlocking, etc.

### **0.0.0 ORIENTATION**

Trainees will be educated and enlightened on

- ✓ Overview and importance of the course
- ✓ Health and Safety
- ✓ Code of conduct
- ✓ Covid-19 measures

### **1.0.0 SMART PHONE REPAIRS**

By the end of this lesson, the learner should fully comprehend:

- ✓ Mobile phone Basics
- ✓ Hardware Troubleshooting & Repair
- ✓ Software Troubleshooting & Repair
- ✓ Identifying and Familiarization of Common Mobile Phones Components and Spare Parts-LCD's Touch Screen Panels, Microphones, Micro Speakers, Switches, Charging Pins, Antenna's & Battery USB connectors

### **2.0.0 TOOLS AND TEST EQUIPMENTS**

By the end of this lesson, the learner should fully comprehend:

- ✓ Safety Procedures and Proper Handling of Tools and Test Equipment
- ✓ How To Use and Read a Multimeter Tester
- ✓ Test and Checkup Procedures on Electronics Components



- ✓ Preparing the Proper Tools for Repairing
- ✓ Opening Tools and Tweezers
- ✓ Soldering and De-soldering Tools
- ✓ Rework Stations
- ✓ Cleaning Kits

### **3.0.0 SOLDERING**

By the end of this lesson, the learner should fully comprehend:

- ✓ What is Soldering & de-soldering?
- ✓ Hand soldering vs. machine soldering
- ✓ Electric tools used in soldering: Soldering machines, Hot-Air machines, Preheaters, Infrared machines
- ✓ Rework stations
- ✓ Soldering tips & soldering irons
- ✓ Hand tools & accessories used in soldering: magnifier, tweezers, Fume Extractor, sponges.
- ✓ Chemicals used in soldering: flux, lead, solder wire, flux remover, tin

### **4.0.0 LIQUID DAMAGE**

By the end of this lesson, the learner should fully comprehend:

- ✓ Types of liquid damage: Toilet, fresh, salt, food
- ✓ Tools used in treatment
- ✓ Chemicals used in treatment

### **5.0.0 TROUBLESHOOTING**

By the end of this lesson, the learner should fully comprehend:

- ✓ Hardware Troubleshooting Basics
- ✓ How to Troubleshoot Not Charging Issues
- ✓ How charging circuit works
- ✓ No Charging Response
- ✓ Charger Not Supported
- ✓ Not Charging
- ✓ How SIM Circuits works
- ✓ Insert Sim Card Problem
- ✓ Invalid Sim Card
- ✓ How Keypad Circuits Works
- ✓ Explanation on How Audio Circuits work , Mouthpiece ,Earpiece ,Buzzer , Ringer Headset, Vibra motor



# **LAPTOP REPAIR SYLLABUS**

## **GENERAL OBJECTIVES**

By the end of the course, the learner should be able to:

1. Explain how to use and apply standard tools and essential electrical/electronic theory to service computer hardware in a manner that is safe for both the device and the technician.
2. Identify the primary hardware components of a personal computer and describe the connection devices—both internal and external to the CPU—that integrate the components and allow for the proper function of the computer and its peripherals.
3. Describe the methods by which personal computers connect and communicate with networks and Internet-based communication systems, both within and external to the private user and business systems.
4. Identify the many types of data storage devices used in personal computer technology, both for primary and secondary storage purposes, and determine the best methods and specifications for the application of memory based on user need.
5. Identify and describe common problems that cause personal computers to malfunction or to function below optimum performance levels and determine the repair solutions that will allow the restoration of proper operating conditions and maintenance techniques that will maintain those conditions.
6. Identify and describe the critical user and administrator functions and commands of Windows operating systems.
7. Interpret a variety of user service requests; choose effective corrective actions that resolve the user's issues, and communicate those actions appropriate to the user.



8. Select both Windows-based administrative tools and utilities and third-party solutions to effectively troubleshoot and correct common operating system malfunctions and as part of a regular maintenance routine to maintain peak system performance levels.
9. Identify and explain the processes and commands used to connect personal computers to various networks and Internet systems.
10. Identify common viruses, malware, and other security threats and choose appropriate courses of action to prevent such attacks and remove threats that have already accessed a computer or computer network.

### **1.0.0 INTRODUCTION TO COMPUTER HARDWARE**

By the end of this lesson, the learner should fully comprehend:

- ✓ Identification of Electronics Components on Motherboards of laptops
- ✓ How to Use Digital Multimeter
- ✓ Introduction of ( Volt, current, Watt)
- ✓ Introduction of ( AC/DC )

### **2.0.0 BASIC ELECTRONICS OF THE MOTHERBOARD**

By the end of this lesson, the learner should fully comprehend:

- ✓ Volt in section
- ✓ Step down section
- ✓ Ram section
- ✓ Battery section (Charging & Discharging Section)
- ✓ I/O (Input Output ) section
- ✓ Lan section
- ✓ Sound section
- ✓ USB section



- ✓ Screen section
- ✓ Keyboard section & Touch pad
- ✓ Hard disk section
- ✓ Wi-Fi section & Adaptor section

### **3.0.0 ASSEMBLING AND DISASSEMBLING**

By the end of this lesson, the learner should fully comprehend:

- ✓ Laptop Assembling and Disassembling process

### **4.0.0 FAULT FINDING AND REPAIRING SOLUTION**

By the end of this lesson, the learner should fully comprehend:

- ✓ No display problem solution
- ✓ Dead motherboard problem solution
- ✓ Automatic Restarting error repairing
- ✓ Hanging problem of laptop and desktop
- ✓ Charging & discharging faults of laptops
- ✓ Dim screen faults solution
- ✓ Automatic off problem
- ✓ Date and time error
- ✓ Blue screen
- ✓ Heating faults of laptop and desktop
- ✓ Fan not working faults of laptop & computer

- ✓ Motherboard Shorting faults
- ✓ Spillage problem
- ✓ USB not working faults
- ✓ Hard disk not working
- ✓ Error from Webcam (camera)
- ✓ Wi-Fi not working problem
- ✓ Sound related faults solution
- ✓ Network related problem
- ✓ Laptop Touchpad not working
- ✓ Keyboard not working faults of laptop & desktop
- ✓ Bluetooth and card reader problem
- ✓ White screen faults of laptops
- ✓ Hinge repair of laptops

#### **4.0.0 SOFTWARE ESSENTIALS**

By the end of this lesson, the learner should fully comprehend:

- ✓ Windows installation
- ✓ Office Installation
- ✓ Installation of Anti-Virus software

#### **5.0.0 COMPUTER STORAGE**

By the end of this lesson, the learner should fully comprehend:

- ✓ Basic theory of how computer storage works
- ✓ Various technologies employed inside common hard drives
- ✓ Configurations of hard drives
- ✓ The hardware and cables used for installation
- ✓ Criteria used to select hard drives for multiple applications



## **6.0.0 REVIEW AND PREPARATION FOR THE JOB MARKET**

By the end of this lesson, the learner should fully comprehend:

- ✓ Review and clarification of previous information
- ✓ Guidance to start and manage your own mobile and laptop repair center.
- ✓ Guidance to successfully work as a technician.
- ✓ Procuring tools, spare parts and accessories.
- ✓ Dealing with customers and distributors.
- ✓ Marketing your mobile phone repair business
- ✓ Valuable and additional tips to thrive in the job market





