



Tertiary and Vocational Education Commission

National Competency Standards and Curriculum For Mobile Phone Repair Technician NVQ Level 3

Course synopsis

This course is designed to introduce students to careers in the field of mobile phone repairing. It provides basic knowledge on software, hardware, operating system, and develops competencies of how to check and find faults of different types and models of mobile phones, repair mechanical, electrical and electronic component of mobile phone.

Course Title	Course Duration
Mobile Phone Repair Technician	3 months – Level 3
<p>Job outlook, objectives of the course and career paths available following completion of the course</p> <p>The earliest generation of mobile phones could only make and receive calls. Today’s mobile phones, however, are packed with many additional features, such as Web browsers, games, cameras, video players and even navigational systems.</p> <p>This course is design to provide competencies required to carry out duties of a mobile phone repair technician. The duties of mobile phone repair technician include finding solutions for the problems in the mobile phone's software or hardware. The technician must first carefully listen to the customer's description of the phone's problem. Then the mobile phone technician must carry out a few tests and carefully assess the device's functionality before opening it up. Components such as battery, screens, keypads, buttons, camera, etc., may require repairing or replacing. Mobile phone repair technicians are required to possess computer and software related skills, good communication skills, clear eyesight and reading and interpreting manufactures manuals and guidelines.</p> <p>This is a three months course including both theory and practical training. . It will be followed by a further three months on the job training in mobile phone repair shops during in which students must maintain records and prepare a portfolio of the work they do.</p> <p>Possible career paths those obtaining this qualification</p> <p>Mobile phones are being extensively used by almost all people in their day-to-day activities. Mobile phones are playing an important and vital role in today business and it has become an essential item. Therefore mobile phone repair technicians are in demand everywhere.</p> <p>Job opportunities for mobile phone repair technicians are available with</p> <ul style="list-style-type: none"> • Both small and large retailers of electronics and mobile phones. • Mobile Phone repair shops • Or as an entrepreneur 	

Modules to be covered

1. Introduction to mobile phone technology

This module provides the knowledge on basics of mobile communication, electronic components used in mobile phone and their characteristics, circuit diagrams and basic types and parts of mobile phones.

2. Interact with customer and perform front end repairs

This module develops the necessary communication skills to interact with the customer and to identify their requirements or the problems faced in the mobile phone and to perform front end repairs.

3. Computer and software related skills

Students will be given knowledge regarding use of tools and instrument used in mobile phone repairing (how to operate computer and laptop etc.), How mobiles works, handling, unlocking, software and applications related to mobile phones.

4. Repair and rectify the faults in mobile phone/Technical expertise

This module is about fault finding and trouble shooting. Assembling and disassembling of different types of mobile phones. This also provide knowledge of resolving software related problems

5. Maintain safe and secure work environment

This module is about the individual's effort to maintain a safe, healthy and secure working environment

6. Career skills 1

This module provides basic communicative skills in English and effective elementary reading and writing skills and basic knowledge of grammar to facilitate this. It also introduces cognitive skills with regard to effective work and the ability to work efficiently alone and in a team.

Module Title :	Course Duration
Introduction to mobile Phone Repair	
<p>Objectives of the module</p> <p>This module provides the basic information about how mobile phone works basic types and parts of mobile phones.</p>	
<p>Competencies to be covered</p> <ol style="list-style-type: none"> 1. Acquire knowledge on <ul style="list-style-type: none"> • basics of mobile communication system and modern communication system • Power source (AC / DC), operating voltages and current, resistors , transistors, Integrated circuits(ICs), Diodes and , other electronic components used in mobile phone and their characteristics • Surface Mounted Technology (SMT)/Devices • Application of SMD code book • Frequency and channels (GPRS, Bluetooth, Wi-Fi) • Types of camera • Block diagrams and circuit diagrams • Soldering/de-soldering methods, fine sold 2. Identify basic types of mobile phones and parts of a mobile phone 3. Identify tools and instruments used in mobile phone repairing such as hot air solder de-solder station, bench power supply, digital multi-meter, tweezers, Flash box with 4. Handle test equipment and precision tools 5. Acquire knowledge on relevant Telecommunication Regulatory Commission(TRC) Regulations 	
Recommended teaching methods :	Illustrated talk, demonstration , real work situations, student result presentation, guided practice

Module Title :	Course Duration:
Find faults and accept the mobile phone for repairing/servicing	
<p>Objectives of the module</p> <p>This module covers the competencies required to identify faults in mobile phone by communicating with the customer and carrying out preliminary inspection.</p>	
<p>Competencies / modules to be covered</p> <ol style="list-style-type: none"> 1. Acquire and deepen communication Skills <ul style="list-style-type: none"> • Engage with the customer by receiving the customers and greeting them as per company norms and following behavioral etiquettes while interacting with them. • Understand the profile of the customers and offer service. • Interrogate the customers to assess the causes of problem. 2. Carry out preliminary inspections and make decisions on the repair/service need to be performed 3. Accept the mobile phone for repair/service <ul style="list-style-type: none"> • Inform about repair charges/ estimated cost, time taken and warranty period • Inform customers about the hardware level repairs. • Inform about how to secure the personal information such as video clips, photos etc. • Handover phone accessories to the customer (SIM, Battery, Memory chip etc) 4. Provide a receipt to the customer for collecting the device after repair 	
Recommended teaching methods :	Colleague and customer role plays, team simulations, real work situation.

Module Title	Course Duration
Perform phone flashing process	
<p>Objectives of the module</p> <p>This module covers the competencies required to operate computer and laptop, identify software/firmware related to mobile phone sand flashing, download mobile phone flashing software/firmware from internet and perform flashing process.</p>	
<p>Competencies to be covered</p> <ol style="list-style-type: none"> 1. Operate computer, laptop and perform internet operation 2. Identify mobile phone related document, software/firmware and applications related to mobile phone with its features and purpose 3. Download mobile phone related document from internet such as model specification, repair manual, flashing software/firmware 4. Upgrade software/firmware 5. Downgrade software/firmware 6. Restore software/firmware 	
Recommended teaching methods :	Simulations, video presentations, demonstration, experiments, technical project, student presentation

Module Title	Course Duration
Repair and rectify the faults in mobile phone	
<p>Objectives of the module</p> <p>This module covers the competencies required for fault finding and troubleshooting of mobile phone, disassembling and assembling of different types of mobile phones. This also about resolving software related problems</p>	
<p>Competencies to be covered</p> <ol style="list-style-type: none"> 1. Perform troubleshooting without dismantling 2. Disassemble and assemble different type of mobile phones 3. Perform soldering and de-soldering operations 4. Identify and replace defective components 5. Check faulty stages on Printed Circuit Board(PCB) 6. Replace PCB components 7. Verify performance of the mobile phone according to the manufacturer's instructions 	
Recommended teaching methods :	Simulations, video presentations, demonstration, guided practice, technical project, student presentation

Module Title	Course Duration
Maintain safe and secure work environment	
This module covers the competencies required to maintain a safe, healthy and secure working environment	
<p>Competencies to be covered</p> <ol style="list-style-type: none"> 1. Follow standard safety procedures while handling an equipment 2. Follow standards and regulations of Telecommunication Regulatory Commission(TRC) 3. Use Personal Protective Equipment(PPE) 4. Handle test equipment and precision tools safely 5. Follow disposal procedures of batteries, electronic components and hardware components 	
Recommended teaching methods :	Technical projects, case studies, real work situations, student demonstration, student presentations, student role plays, panel discussions

Module Title	Course Duration
Career Skills 1	At least 100 hours in 3 month course
<p>Objectives of the course</p> <p>All recent studies make it clear that one of the greatest problems noted with regard to the employability of students in the TVET sector is the absence of soft skills, in particular communicative competence in English. Employers have indicated that they would appreciate better English in their staff and the ability to communicate with more confidence.</p> <p>This course provides basic communicative skills in English and effective elementary reading and writing skills and basic knowledge of grammar to facilitate this. It also introduces cognitive skills with regard to effective work and the ability to work efficiently alone and in a team.</p>	
<p>Competencies to be covered</p> <p>a Understand and use simple expressions to communication This subject provides the necessary communication skills so that students can introduce themselves and interact with others, and can respond to simple questions and follow simple instructions, describe people, places, and tools.</p> <p>b Read and write effectively This subject provides the necessary skills to find and understand the information given in a text, to understand notices, instructions and information, to take down short messages and write simple descriptions.</p> <p>c. Use English correctly This subject is not taught separately but is included in the development of the productive and receptive skills above, since awareness of the structure of the language is necessary for these The development of appropriate vocabulary is also targeted to deploy the above skills</p> <p>d. Develop the capacity to think and plan productively This subject develops cognitive abilities and skills with regard to effective work, with strengthening of thinking skills, recognition of systems, making deductions etc</p> <p>e. Develop effective working capacity This subject develops the capacity to work effectively individually and in collaboration with others through building the sense of individual responsibility, and accountability within a working group</p>	