Government of Pakistan

National Vocational and Technical Training Commission

Prime Minister's Hunarmand Pakistan Program

"Skills for All"

Course Contents/ Lesson Plan

Course Title: Repair & Maintenance of Domestic Electronics / Electrical Appliances

Duration: 6 Months

Course Details / Description & Preliminaries

Course Title	Repair & Maintenance of Domestic Electronics / Electrical Appliances
Objectives and Expectations	**Employable skills through an intensive course on Repair & Maintenance of Domestic Electronics / Electrical Appliances** This is a special course designed to address unemployment in the youth. The course aims to achieve the above objective through hands on practical training delivery by a team of dedicated professionals having rich market/work experience. This course is therefore not just for developing a theoretical understanding/back ground of the trainees. Contrary to that it is primarily aimed at equipping the trainees to perform commercially in a market space in independent capacity or as a member of a team. The course therefore is designed to impart not only technical skills but also soft skills (i.e. interpersonal/communication skills; personal grooming of the trainees etc.) as well as entrepreneurial skills (i.e. marketing skills; free lancing etc.). The course also seeks to inculcate work ethics to foster better citizenship in general and improve the image of Pakistani work force in particular. **Main Expectations:** In short, the course under reference should be delivered by professional instructors in such a robust hands- on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion. This course thus clearly goes beyond the domain of the traditional training practices in vogue and underscores an expectation that a market centric approach will be adopted as the main driving force while delivering it. The instructors should therefore be experienced enough to be able to identify the training needs for the possible market roles

Key Features of Training& Special Modules	available out there. Moreover, they should also know the strengths and weaknesses of each individual trainee to prepare them for such market roles during/after the training. **i.** Specially designed practical tasks to be performed by the trainees have been included in the Annexure-I to this document. The record of all tasks performed individually or in groups must be preserved by the management of the training Institute clearly labeling name, trade, session etc so that these are ready to be physically inspected/verified through monitoring visits from time to time. The weekly distribution of tasks has also been indicated in the weekly lesson plan given in this document. **ii.** In order to materialize the main expectations, a special module on **Job Search & Entrepreneurial Skills** has been included in the later part of this course (5^{th} & 6^{th} month) through which, the trainees will be made aware of the Job search techniques in the local as well as international job markets (Gulf countries). Awareness around the visa process and immigration laws of the most favored labor destination countries also forms a part of this module. Moreover, the trainees would also be encouraged to venture into self-employment and exposed to the main requirements in this regard. It is also expected that a sense of civic duties/roles and responsibilities will also be inculcated in the trainees to make them responsible citizens of the country. **iii.** A module on **Work Place Ethics** has also been included to highlight the importance of good and positive behavior at work place in the line with the best practices elsewhere in the world. An outline of such qualities has been given in the Appendix to this document. Its importance should be conveyed in a format that is attractive and interesting for the

Training Tools/ Methodology	trainees such as through PPT slides +short video documentaries. Needless to say that if the training provider puts his heart and soul into these otherwise non-technical components, the image of Pakistani workforce would undergo a positive transformation in the local as well as international job markets. In order to maintain interest and motivation of the trainees throughout the course, modern techniques such as: • Motivational lectures • Success stories • Case studies These techniques would be employed as an additional training tool wherever possible (these are explained in the subsequent section on Training Methodology). Lastly, evaluation of the competencies acquired by the trainees will be done objectively at various stages of the training and proper record of the same will be maintained. Suffice to say that for such evaluations, practical tasks would be designed by the training providers to gauge the problem solving abilities of the trainees. **(i) Motivational Lectures** The proposed methodology for the training under reference employs motivation as a tool. Hence besides the purely technical content, a trainer is required to include elements of motivation in his/her lecture to inspire the trainees to utilize the training opportunity to the full and strive towards professional excellence. Motivational lectures may also include general topics such as the importance of moral values and civic role & responsibilities as a Pakistani. A motivational lecture should be delivered with enough zeal to produce a deep impact on the trainees. It may comprise of the following: • Clear Purpose to convey message to trainees effectively.

- Personal Story to quote as an example to follow.
- Trainees fit so that the situation is actionable by trainees and not represent a just idealism.
- Ending Points to persuade the trainees on changing themselves.

A good motivational lecture should help drive creativity, curiosity and spark the desire needed for trainees to want to learn more.

Impact of a successful motivational strategy is amongst others commonly visible in increased class participation ratios. It increases the trainees' willingness to be engaged on the practical tasks for longer time without boredom and loss of interest because they can clearly see in their mind's eye where their hard work would take them in short (1-3 years); medium (3 -10 years) and long term (more than 10 years).

As this tool is expected that the training providers would make arrangements for regular well planned motivational lectures as part of a coordinated strategy interspersed throughout the training period as suggested in the weekly lesson plans in this document.

(ii) Success Stories

Another effective way of motivating the trainees is by means of Success Stories. Its inclusion in the weekly lesson plan at regular intervals has been recommended till the end of the training.

A success story may be disseminated orally, through a presentation or by means of a video/documentary of someone that has risen to fortune, acclaim, or brilliant achievement. A success story shows how a person achieved his goal through hard work, dedication and devotion. An inspiring success story contains compelling and significant facts articulated clearly and easily comprehendible words. Moreover, it is helpful if it is assumed that the reader/listener knows nothing of what is being revealed. Optimum impact is created when the story is revealed in the form of:-

- Directly in person (At least 2-3 cases must be arranged by the training institute)
- Through an audio/ videotaped message (2-3 high quality videos

	must be arranged by the training institute) It is expected that the training provider would collect relevant high quality success stories for inclusion in the training as suggested in the weekly lesson plan given in this document. Suggestive structure and sequence of a sample success story and its various shapes can be seen at annexure III. **(iii) Case Studies** Where a situation allows, case studies can also be presented to the trainees to widen their understanding of the real life specific problem/situation and to explore the solutions. In simple terms, the case study method of teaching uses a real life case example/a typical case to demonstrate a phenomenon in action and explain theoretical as well as practical aspects of the knowledge related to the same. It is an effective way to help the trainees comprehend in depth both the theoretical and practical aspects of the complex phenomenon in depth with ease. Case teaching can also stimulate the trainees to participate in discussions and thereby boost their confidence. It also makes class room atmosphere interesting thus maintaining the trainee interest in training till the end of the course. Depending on suitability to the trade, the weekly lesson plan in this document may suggest case studies to be presented to the trainees. The trainer may adopt a power point presentation or video format for such case studies whichever is deemed suitable but it's important that only those cases are selected that are relevant and of a learning value. The Trainees should be required and supervised to carefully analyze the cases. For the purpose they must be encouraged to inquire and collect specific information / data, actively participate in the discussions and intended solutions of the problem / situation. **Case studies can be implemented in the following ways:-** i. A good quality trade specific documentary (At least 2-3

	documentaries must be arranged by the training institute) ii. Health & Safety case studies (2 cases regarding safety and domestic accidents must be arranged by the training institute) iii. Field visits (At least one visit to a trade specific major industry/ site must be arranged by the training institute)
Learning Outcome of the Course	By the end of the course the trainees will be able to have following competencies and skills. • Ensure occupational safety including personal, environmental, tools and equipments. • Understand and follow the operating guidelines and procedures. • Underused the installation of electronic home appliances accordingly. • Perform test run. • Diagnose the faults of home electric appliances. • Perform repairing including mechanical and electrical. • Carryout dismantling and assembling. • Demonstrate home electric appliance. • Replacement of faulty parts • Perform preventive maintenance
Course Execution Plan	Total duration of course: **6 months (26 Weeks)** Class hours: **4 hours per day** Theory: **20%** Practical: **80%** Weekly hours: **20 hours per week** Total contact hours: **520hours**
Companies Offering Jobs in the respective trade	Public/Private industries including: 1. **Dawlance.** 2. **Electrolux.** 3. **Gree.** 4. **Haier.** 5. **Orient.**

	6. **Panasonic.** 7. **Pel.** 8. **Sharp.**
Job Opportunities	• Home Appliance Repairer • Service Technician • Governmental institutes. • Semi-Governmental Institutes. • Private Institutes. • Workshops • Service centers • Appliance production units • Overseas employment • Self-employment
No of Students	25
Learning Place	Classroom / Lab / Workshop
Instructional Resources	

WEEKLY SCHEDULE OF TRAINING

Scheduled Week	Module Title	Learning Units	Remarks
Week 1	**Basics of electricity and Electrical Cables**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Basic terms electric charges, Potential difference, Voltage, Current, and Resistance. • Basics of AC & DC. Terms such as positive cycle, negative cycle, Frequency, Time period, RMS, Peak value, peak to peak, instantaneous values,	**Task-1** **Task-2** **Task-3** **Task-4** **Task-5** **Task-6** (Details may be seen at Annexure-I)
Week 2		**Success stories (***For further detail please see Page No: 3& 4)* • Insulators, conductors and • semiconductor. • Different type of electrical cables and their specifications.	**Task-7** **Task-8** **Task-9** (Details may be seen at Annexure-I)
Week 3	**Multi-meter**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Precaution to be taken in handling an analog Multi-meter. • Study of different controls on Multimeter • Principle of operation of Analog Multi-meter. • Precaution to be taken in handling digital Multimeter.	**Task-10** **Task-11** **Task-12** (Details may be seen at Annexure-I) **Home Assignment-1** (Details may be seen at Annexure-II)

Week 4		**Success stories (***For further detail please see Page No: 3& 4)* • Frequently occurring problems in Analog • multimeters and the remedial measures • Precaution to be taken in handling digital Multimeter, Familiarization with operation controls of digital Multi-meter • Principle of operation of digital Multi-meter. • Frequently occurring problems in Digital • multimeters and the remedial measures	**Task-13** **Task-14** **Task-15** **Task-16** (Details may be seen at Annexure-I) **Monthly Test 1**
Week 5	**Basic Electronics Components**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Resistor-definition, types of resistors, their construction & specific use, color-coding, power rating. • Types of inductors, specifications and applications.	**Task-17** **Task-18** **Task-19** **Task-20** (Details may be seen at Annexure-I)
Week 6		**Success stories (***For further detail please see Page No: 3& 4)* • Types of capacitors, specifications and Applications • Working principle of a Transformer, Specifications of a transformer, Step-up, Step down and isolation transformers. • Fuse – types, use of fuses and its rating.	**Task-21** **Task-22** **Task-23** **Task-24** **Task-25** (Details may be seen at Annexure-I)
Week 7		**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Basic Electronics active components, testing of	**Task-26** **Task-27** **Task-28** **Task-29**

	Power supply	components, • Working of half wave, full wave and bridge rectifier circuits. • Voltage Regulator circuit. • Applications of transistor – its uses	(Details may be seen at Annexure-I) **Home Assignment-2** (Details may be seen at Annexure-II)
Week 8		**Success stories (***For further detail please see Page No: 3& 4)* • MOSFET – precautions when handling. • DIAC, SCR, TRIAC – application • Identify the pin diagram of Voltage regulator ICs	**Task-30** **Task-31** **Task-32** **Task-33** (Details may be seen at Annexure-I) **Monthly Test 2**
Week 9	**UPS/Inverter**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Various types of batteries used in UPS and Inverters and their maintenance.	**Task-34** **Task-35** **Task-36** (Details may be seen at Annexure-I)
Week 10		**Success stories (***For further detail please see Page No: 3& 4)* • Different types of inverter, UPS, • Working principle, specifications, explanation with the help of block diagram	**Task-37** **Task-38** **Task-39** **Task-40** **Task-41** **Task-42** (Details may be seen at Annexure-I)

Week 11	**SMPS**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Block Diagram of Switch mode power supplies and their working principles	**Task-43** **Task-44** **Task-45** **Task-46** (Details may be seen at Annexure-I)
Week 12	**Washing machine**	**Success stories (***For further detail please see Page No: 3& 4)* • Different types of machines, washing techniques, parts of manual, semi-automatic and fully automatic machines.	**Task-47** **Task-48** **Task-49** **Task-50** **Task-51** **Task-52** (Details may be seen at Annexure-I)
	Build your CV	Download professional CV template from any good site (https://www.coolfreecv.com or relevant) • Add Personal Information • Add Educational details • Add Experience/Portfolio • Add contact details/profile links	
Week 13	**Overview of the previous weeks & Mid Term Examination**		
Week 14		**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Basic working principle of manual, semi-automatic and fully automatic machines, • Study the working of motors, different types of timers, power supply circuits	**Task-53** **Task-54** **Task-55** **Task-56** **Task-57** (Details may be seen at Annexure-I)

Week 15	**Microwave oven**	**Success stories (***For further detail please see Page No: 3& 4)* • Different types of oven, • Study the various functions of Oven.	**Task-58** **Task-59** (Details may be seen at Annexure-I) **Home Assignment-3** (Details may be seen at Annexure-II)
	Create an account profile on Fiverr (at least two gigs) and Upwork	Create an account by following these steps: Step 1: Personal Info Step 2: Professional Info Step 3: Linked Accounts Step 4: Account Security	
Week 16		**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Electrical wiring diagram of microwave oven, working of Power supply.	**Task-60** **Task-61** **Task-62** **Task-63** **Task-64** **Task-65** **Task-66** (Details may be seen at Annexure-I) **Monthly Test 3**
Week 17	**Steam Iron**	**Success stories (***For further detail please see Page No: 3& 4)* • Principle of electric iron, parts of steam • iron, thermostat heat controls.	**Task-67** **Task-68** (Details may be seen at Annexure-I)

Week 18	**Electric Rice cooker**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Principle of working of rice cooker. • Various parts & functions of rice cooker, • Temperature control and timer unit	**Task-69** (Details may be seen at Annexure-I)
Week 19	**Electric kettle**	**Success stories (***For further detail please see Page No: 3& 4)* • Principle of working of electric kettle. • Various parts & functions of electric kettle and temperature control unit.	**Task-70** (Details may be seen at Annexure-I) **Home Assignment-4** (Details may be seen at Annexure-II)
Week 20	**Mixer & Grinder**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Various parts & functions of Mixer/Grinder, speed control circuit & automatic overload protector.	**Task-71** **Task-72** (Details may be seen at Annexure-I) **Monthly Test 4**
Week 21	**REFRIGERATION**	**Success stories (***For further detail please see Page No: 3& 4)* • Refrigeration Concepts • Refrigeration Cycle	**Task-73** **Task-74** **Task-75** **Task-76** (Details may be seen at Annexure-I)

Week 22	**REFRIGERATION COMPONENTS**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Refrigerants and Oils • Compressors • Evaporator Metering Devices • Evaporators and Condensers • Air Properties	**Task-77** **Task-78** **Task-79** **Task-80** **Task-81** (Details may be seen at Annexure-I)
	How to search and apply for jobs in at least two labor marketplace countries (KSA, UAE, etc.)	• Browse the following website and create an account on each website ▪ Bayt.com – The Middle East Leading Job Site ▪ Monster Gulf – The International Job Portal ▪ Gulf Talent – Jobs in Dubai and the Middle East • Find the handy 'search' option at the top of your homepage to search for the jobs that best suit your skills. • Select the job type from the first 'Job Type' drop-down menu, next, select the location from the second drop-down menu. • Enter any keywords you want to use to find suitable job vacancies. • On the results page you can search for part-time jobs only, full-time jobs only, employers only, or agencies only. Tick the boxes as appropriate to your search. • Search for jobs by: ▪ Company ▪ Category ▪ Location ▪ All jobs ▪ Agency Industry	

Week 23		**Success stories (***For further detail please see Page No: 3& 4)* • Air Conditioning • Defrost Systems • Icemaker Systems • Refrigeration Cabinet Servicing	**Task-82** **Task-83** **Task-84** **Task-85** (Details may be seen at Annexure-I)
Week24	**AIR CONDITIONING APPLIANCES**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Domestic Air Conditioners • Laws, Regulations and Code • Refrigerant Recovery, Recycling and Reclaiming • Refrigerant Management • Interprovincial Standards Red Seal Program	**Task-86** **Task-87** **Task-88** **Task-89** **Task-90** (Details may be seen at Annexure-I)
Week25	**MAINTENANCE, TROUBLESHOOTING AND REPAIR**	**Success stories (***For further detail please see Page No: 3& 4)* • Leak Detection • Refrigeration Tools • Soldering and Brazing • System Evacuation, Dehydrating and Charging • Electrical Components	**Task-91** **Task-92** **Task-93** **Task-94** **Task-95** (Details may be seen at Annexure-I)
Week 26	**TROUBLESHOOTING AND SYSTEM COMPONENT REPLACEMENT**	**Motivational Lecture (For** *further detail please see Page No: 3& 4)* • Troubleshooting and System Component Replacement	**Task-96** (Details may be seen at Annexure-I)
	Entrepreneurship and Final Assessment in project	• Job Market Searching • Self-employment • Introduction • Fundamentals of Business Development • Entrepreneurship • Startup Funding • Business Incubation and Acceleration • Business Value Statement	

		• Business Model Canvas • Sales and Marketing Strategies • How to Reach Customers and Engage CxOs • Stakeholders Power Grid • RACI Model, SWOT Analysis, PEST Analysis • SMART Objectives • OKRs • Cost Management (OPEX, CAPEX, ROCE etc.)	
	Projects & Final Assessment		

Annexure-I

Note: The following tasks are required to be performed multiple times by each trainee/group until sufficient proficiency level is acquired. The trainer is required to determine the number of times, each task needs to be repeated by a trainee as per his/her low/medium/high level of skill and proficiency during any stage of the course.

Repair & Maintenance of Domestic Electronics / Electrical Appliances

Task No.	Task Description	Week
1.	Practice procedure for electrical and personal safety measures	Week-1
2.	Identify the Live, Neutral and Earth on power Socket.	
3.	Construct a test lamp and use it to mains healthiness.	
4.	Use a Tester to monitor AC power.	
5.	Measure the voltage between the neutral and ground and rectify earthing.	
6.	Identify and test different ac mains cables	
7.	Skin the electrical wires /cables	Week-2
8.	Measure the gauge of the wire using SWG.	
9.	Make the mains cable for termination	
10.	Use the analog and digital Multi-meter to measure the DC voltage by doing measurement at the test points provided.	Week-3
11.	Use the analog and digital Multi-meter to measure AC voltage measurement by doing measurement at the test points provided.	
12.	Adjust the zero-adjustment screw for proper zero setting with the help of a screwdriver before using Multi-meter.	
13.	Replace the battery in the Multi-meter.	Week-4
14.	Replacing the open Fuse with correct rating	
15.	Cleaning the switch contacts using switch cleaning solution.	
16.	Testing the fuse.	
17.	Identify the different types of resistors.	Week-5
18.	Measure the resistor values using colour code and verify the reading by ensuring in multi-meter.	
19.	Identify the power rating using size.	
20.	Identify different inductors and measure the values using LCR meter.	
21.	Identify the different capacitors and measure capacitance of various capacitors using LCR meter.	Week-6
22.	Dismantle and identify the different parts of a relay.	
23.	Identify different types of mains transformers and test them.	
24.	Identify the primary and secondary transformer windings.	

25.	Measure the primary and secondary voltage of different transformers	
26.	Testing of active components	**W**eek-7
27.	Practice soldering and de-soldering techniques.	
28.	Assemble and test– half wave, full wave & bridge rectifier circuits with and without filter.	
29.	Identify the different types of fixed positive and negative regulator ICs (78/79 series)	
30.	Identify the pins.	**W**eek-8
31.	Construct a fixed voltage regulator using 78xx/79xx series ICs.	
32.	Construct a variable voltage regulator using LM 723.	
33.	Observe the output voltage of different IC regulators by varying the input voltage	
34.	Identify the primary and secondary cells.	**W**eek-9
35.	Measure and test the voltages of the given cells/battery using analog and digital Multi-meter.	
36.	Use a hydrometer to measure the specific gravity of the secondary battery	
37.	Installation of UPS and Inverters	**W**eek-10
38.	Maintenance of batteries	
39.	Dismantle the UPS and identify the major parts.	
40.	Testing of major components	
41.	Testing of power modules	
42.	Charging, discharging and testing of batteries.	
43.	Dismantle the given SMPS and find major sections/ ICs components.	**W**eek-11
44.	Measure voltages at vital points	
45.	Identify various input and output sockets/ connectors of the given SMPS.	
46.	Repairing of SMPS, simulating various faults diagnosing and rectifying it.	
47.	Installation of front load washing machine	**W**eek-12
48.	Installation of top load washing machine	
49.	Identify the internal and external parts of semi-auto washing machine.	
50.	Identify the internal and external parts of fully automatic washing machine.	
51.	Operate semi–automatic washing machine.	
52.	Operate fully automatic washing machine.	
53.	Rectify the fault leading to not working of control panel switches.	**W**eek-14
54.	Rectify the fault leading to not working of pulsator / agitator.	
55.	Rectify the fault leading to spin drier not working.	
56.	Rectify the fault leading to one side rotation of motor.	

57.	Rectify the fault leading to water inlet and outlet valves.	
58.	Identify the internal and external parts of microwave oven.	**W**eek-15
59.	Identify the different touch pad controls their functions.	
60.	Testing of high voltage diode.	**W**eek-16
61.	Identify the HV capacitor and discharge it.	
62.	Rectify the fault leading to fuse blows off when cooking is initiated.	
63.	Rectify the fault leading to not responding of touch switches. (front panel)	
64.	Rectify the fault leading to dead set.	
65.	Rectify the fault leading to long cooking time.	
66.	Precautions – importance of interlocking switch in performing maintenance	
67.	Dismantle and identification of various parts, wiring, tracing of various controls, Electronic circuits in steam Iron.	**W**eek-17
68.	Identify the faults in steam iron & rectify	
69.	Identify various components of Electric rice cooker, controls and trace the circuit and rectify the simulated faults	**W**eek-18
70.	Identify various components of Electric kettle, controls and trace the circuit and rectify the simulated faults	**W**eek-19
71.	Dismantle and identification of various parts, wiring, tracing of various controls, Electronic circuits in various types of Mixers/grinders.	**W**eek-20
72.	Identify the faults in various types of Mixers/grinders & rectify	
73.	Perform calculations related to heat transfer.	**W**eek-21
74.	Convert temperatures and pressures between various scales.	
75.	Plot a basic cycle using a pressure enthalpy diagram.	
76.	Use formulas for calculating gas laws and pressure enthalpy.	
77.	Describe the properties and characteristics of refrigerants and oils.	**W**eek-22
78.	Describe the operating principles of compressors	
79.	Describe applications and principles of metering devices	
80.	Describe the purpose, operation and test procedures of evaporators and condensers.	
81.	Describe the characteristics of air.	
82.	Describe the processes for conditioning air.	**W**eek-23
83.	Troubleshoot defrost systems.	
84.	Troubleshoot icemaker systems.	
85.	Describe the principles, characteristics and service procedures of refrigeration cabinet components.	
86.	Service air conditioning systems	**W**eek-24
87.	Apply regulations relating to handling refrigerant	

88.	Perform procedures for refrigerant recovery, recycling and reclaiming	
89.	Use refrigerant handling techniques.	
90.	Use Red Seal products to challenge an Interprovincial examination	
91.	Perform leak detection	**W**eek-25
92.	Use refrigeration tools.	
93.	Perform soldering and brazing	
94.	Perform cleaning, evacuating, dehydrating, and charging of sealed systems.	
95.	Diagnose electrical components in a refrigeration system	
96.	Repair a sealed refrigeration system	**W**eek-26

Annexure-II

Home Assignment

Designing Effective Homework

To achieve a positive impact on student learning, homework assignments must be well-designed and carefully constructed. Some specific research findings include:

- ► Homework is most effective when it covers material already taught.
- ► Homework is most effective when it is used to reinforce skills learned in previous weeks or months.
- ► Homework is less effective if it is used to teach complex skills.

Characteristics of Good Assignments

When teachers plan homework, they should consider the characteristics listed below:

- ► Provide clear instructions for students;
- ► Can be completed successfully;
- ► Are not too long;
- ► Can be completed within a flexible time frame;
- ► Use information and materials that are readily available;
- ► Reinforce and allow practice of previously taught skills;
- ► Must not be unfinished class work;
- ► Are interesting to students and lead to further exploration and study;
- ► Stimulate creativity and imagination in the application of skills;
- ► Stimulate home and class discussion

Homework Don'ts

Do not assign homework that:

- ► Is unfamiliar, boring or impossible to do
- ► Requires complex skills or requires unreasonable time frames
- ► Is a "time filler" to keep students busy or a punishment for not doing class work
- ► Do not wait until the last minute to organize and assign the *homework (You may give useless or impossible tasks and/or giving inadequate directions)*
- ► Do not assume that all homes have equal resources, that all parents have equal skills and talents to support their children as learners
- ► Do not collect any homework you do not intend to check, review or grade.
- ► Do not assign homework that is so difficult and unfamiliar to students that their parents are tempted to:
    - Do the work for them;
    - Accuse their children of being inattentive in class; or
    - Accuse their children of failing.

Annexure-III

Repair & Maintenance of Domestic Electronics / Electrical Appliances

What is freelancing and how you can make money online - BBCURDU

https://www.youtube.com/watch?v=9jCJN3Ff0kA

What Is the Role of Good Manners in the Workplace? By Qasim Ali Shah | In Urdu

https://www.youtube.com/watch?v=Qi6Xn7yKIlQ

Hisham Sarwar Motivational Story | Pakistani Freelancer

https://www.youtube.com/watch?v=CHm_BH7xAXk

21 Yr Old Pakistani Fiverr Millionaire | 25-35 Lakhs a Month Income | Interview

https://www.youtube.com/watch?v=9WrmYYhr7S0

Failure to Millionaire - How to Make Money Online | Fiverr Superhero Aaliyaan Success Story

https://www.youtube.com/watch?v=d1hocXWSpus

Annexure-IV

Workplace/Institute Ethics Guide

Work ethic is a standard of conduct and values for job performance. The modern definition of what constitutes good work ethics often varies. Different businesses have different expectations. Work ethic is a belief that hard work and diligence have a moral benefit and an inherent ability, virtue or value to strengthen character and individual abilities. It is a set of values centered on importance of work and manifested by determination or desire to work hard.

The following ten work ethics are defined as essential for employee's success:

1. **Attendance:**
   Be at work every day possible, plan your absences don't abuse leave time. Be punctual every day.
2. **Character:**
   Honesty is the single most important factor having a direct bearing on the final success of an individual, corporation, or product. Complete assigned tasks correctly and promptly. Look to improve your skills.
3. **Team Work:**
   The ability to get along with others including those you don't necessarily like. The ability to carry your own weight and help others who are struggling. Recognize when to speak up with an ideas and when to compromise by blend ideas together.
4. **Appearance:**
   Dress for success, set your best foot forward, personal hygiene, good manner, remember that the first impression of who you are, can last a life time
5. **Attitude:**
   Listen to suggestions and be positive, accept responsibility. If you make a mistake, admit it. Values workplace safety rules and precautions for personal and co-worker safety. Avoids unnecessary risks. Willing to learn new processes, systems and procedures in light of changing responsibilities.
6. **Productivity:**
   Do the work correctly, quality and timelines are prized. Get along with fellows, cooperation is the key to productivity. Help out whenever asked, do extra without being asked. Take pride in your

work, do things the best you know how. Eagerly focuses energy on accomplishing tasks, also referred to as demonstrating ownership. Takes pride in work.

7. **Organizational Skills:**

   Make an effort to improve, learn ways to better yourself. Time management; utilize time and resources to get the most out of both. Takes an appropriate approach to social interactions at work. Maintains focus on work responsibilities.

8. **Communication:**

   Written communication, being able to correctly write reports and memos. **Verbal communications,** being able to communicate one on one or to a group.

9. **Cooperation:**

   Follow institute rules and regulations, learn and follow expectations. Get along with fellows, cooperation is the key to productivity. Able to welcome and adapt to changing workplace situations and the application of new or different skills.

10. **Respect:**

    Work hard, work to the best of your ability. Carry out orders, do what's asked the first time. Show respect, accept and acknowledge an individual's talents and knowledge. Respects diversity in the workplace, including showing due respect for different perspectives, opinions and suggestions.

Annexure-V

Suggestive Format and Sequence Order of Success Story

S. No	Key Information	Detail/Description
1.	**Self & Family background**	• Self-introduction • Family background and socio economic status, • Education level and activities involved in • Financial hardships etc
2.	**How he came on board NAVTTC Training/ or got trained through any other source**	• Information about course, apply and selection • Course duration, trade selection • Attendance, active participation, monthly tests, interest in lab work
3.	**Post training activities**	• How job / business (self-employment) was set up • How capital was managed (loan (if any) etc). • Detail of work to share i.e. where is job or business being done; how many people employed (in case of self-employment/ business) • Monthly income or earnings and support to family • Earning a happy life than before
4.	**Message to others (under training)**	• Take the training opportunity seriously • Impose self-discipline and ensure regularity • Make Hard work pays in the end so be always ready for the same.

Note: Success story is a source of motivation for the trainees and can be presented in a number of ways/forms in a NAVTTC skill development course as under: -

1. To call a passed out successful person of institute. He/she will narrate his/her success story to the trainees in his/her own words and meet trainees as well.
2. To see and listen to a recorded video/clip (5 to 7 minutes) showing a successful person Audio video recording that has to cover the above mentioned points.
3. The teacher displays the picture of a successful trainee (name, trade, institute, organization, job, earning per month etc) and narrates his/her story in teacher's own motivational words.