## Government of Pakistan

## National Vocational and Technical Training Commission

## Prime Minister's Hunarmand Pakistan Program

"Skills for All"



**Course Contents/Lesson Plan Course** 

**Title: Heavy Machinery Operator** 

**Duration: 3** Months

## **Revised Edition**

Trainer Name	
Course Title	Heavy Machine Operator
Objectives and Expectations	Employable skills and hands on practice for Heavy Machine Operator
Expediations	Course provides an opportunity to build a great career in the field of Heavy Machine Operator design, course start from basic level and then move towards the advance level. Starting from introduction of Heavy Machinery then move towards operations. This course will cover the different machines operations like Bulldozer, Motor Grader, Excavator, Wheel Loader and also the different checks of the engine.
	Main Expectations:
	In short, the course under reference should be delivered by professional instructors in such robust hands- on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion, where's hands on practice are not valid than demonstration will be required through video contents/ project prototype.
	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 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.
	1. 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.
	2. In order to materialize the main expectations, a special module on <b>Job Search &amp; Entrepreneurial Skills</b> has been included in the later part of this course (5 <sup>th</sup> & 6 <sup>th</sup> 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.
	3. A module on Workplace 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 qualitieshas been given in the Appendix to this document. Its importance should be conveyed in a format that is attractive and interesting for the 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 wouldbe designed by the training providers to gauge the problem solving abilities of the trainees.

#### **Motivational Lectures**

The proposed methodology for the training under reference employs motivationas 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 notrepresent 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 wellplanned motivational lectures as part of a coordinated strategy interspersed throughout the training period as suggested in the weekly lesson plans in this document.

#### 2. **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 thetraining institute)
- Through an audio/ videotaped message (2-3 high quality videosmust 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.

#### **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 classroom 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: -

- A good quality trade specific documentary (At least 2-3documentaries must be arranged by the training institute)
- Health & Safety case studies (2 cases regarding safety and industrial accidents must be arranged by the training institute)

Field visits (At least one visit to a trade specific major industry/ site must bearranged by the training institute)

## Entry level of Trainees

Middle/ SSC

# Learning Outcomes of the Course

## By the end of this course, the trainees should be able to perform thefollowing competencies:-

#### Comply with Work Health and Safety Policies

- Work Safely at Work Place
- Communicate work health and safety (WHS) assess at work place
- Minimize risks to personal safety at work place
- Minimize risks to public safety

#### Obey the Workplace Policies and Procedures

- Obey the workplace personal appearance and hygiene
- Follow work ethics
- Demonstrate the work place behaviors
- Communicate workplace policy & procedures
- Review the implementation of workplace policy & procedures

#### Follow Basic Communication Skills (General)

- Adopt effective listening to skills
- Develop nonverbal communication with peers
- Prepare for Interview to get a job
- Use communication platform at workplace
- Identify communication barriers to improve interpersonal skills

#### **Operate Computer Functions (General)**

- Set up the computer for use
- Organize files in folder
- Shut down computer system

#### **Identify Machine & its Attachments**

- Identify machine and its sizes.
- Identify components & attachments
- Identify capacities & capabilities of machine
- Identify basic tools and supplies associated with machines
- Maintain inventory of tools and equipment.

#### **Comply with Personal Health and Safety Guidelines**

- Identify Personal Hazards at work place
- Apply personal protective and safety equipment (PPE)
- Comply with occupational safety and health (OSH)
- Dispose of hazardous waste/materials from the designated area

#### Communicate the Workplace Policy and Procedure

- Identify workplace communication procedures
- Communicate at workplace
- **Draft Written Information**
- **Review Documents**

#### **Perform Basic Communication (Specific)**

- Communicate in a team to achieve intended outcomes
- Follow Supervisor's instructions as per organizational SOPs
- Develop Generic communication skills at workplace

#### Perform Basic Computer Application (Specific)

- Create Word Documents
- Create Excel Documents
- Use internet for Browsing

#### Maintain Machine (with Engine Off)

- Inspect and Service of lubrication system
- Inspect and Service electrical system
- Inspect and Service hydraulic system
- Inspect and Service cooling system
- Inspect and Service of air intake system
- Inspect and Service of fuel system
- Inspect and Service of suspension system
- Inspect and Service of drive train
- Inspect and Service of braking system
- Inspect and Service of load bearing structure
- Inspect and Service of operator station/Cab
- Inspect Equipment safety
- Inspect and Service of attachments
- Inspect and Service of supporting pneumatic (Air-filled) system

#### Maintain Machine (with Engine Running)

- Monitor warning systems
- Warm up engine
- Cycle equipment functions
- Scheduled Maintenance Requirements
- Logbook

#### **Park Machines**

- Clean under carriage and attachments before parking
- Park equipment in appropriate location
- Shut down and secure equipment
- Housekeeping tasks
- Visual inspection

#### Apply Work Health and Safety Practices (WHS)

- Implement safe work practices at work place
- Participate in hazard assessment activities at a work place
- Follow emergency procedures at workplace
- Participate in OHS consultative processes

#### **Identify and Implement Workplace Policy and Procedures**

- Identify workplace policy & procedures
- Implement workplace policy & procedures
- Communicate workplace policy & procedures
- Review the implementation of workplace policy &procedures

#### **Communicate at Workplace**

- Communicate within the organization
- Communicate outside the organization
- Communicate effectively in workgroup
- Communicate in writing

#### **Perform Computer Application Skills**

- Prepare In-page documents as per required information
- Prepare Spreadsheets as per required information
- Use MS Office as per required information
- Perform computer graphics in basic applications
- Create Email account for communications

#### **Manage Personal Finances**

- Develop a personal budget
- Develop long term personal budget
- Identify ways to maximize future finances

#### **Transport Machines**

- Prepare to load machine and attachments
- Loading machine and attachments
- Securing machine and attachments

- Unload or assist with unloading machine and attachments
- Prepare rubber-tired machine for road travel
- Drive rubber-tired machine on public roads

#### Operate Bulldozer

- Operate controls
- Strip and stockpile surface materials
- Cut and fill material
- Create slopes
- · Create ditches
- Spread ballast
- Rip dense materials
- Clear land
- Push scraper

#### **Operate Wheel Loader**

- Install attachments
- Operate controls
- Dig, carry (tram) &stockpile materials
- Place and spread materials
- Backfill trenches &excavate
- Load trucks

#### Contribute to Work Related Health and Safety (WHS) Initiatives

- Contribute to initiate work-related health and safety measures
- Contribute to establish work-related health and safety measures
- Contribute to ensure legal requirements of WHS measures
- Contribute to review WHS measures
- · Evaluate the organization's WHS system

#### **Analyze Workplace Policy and Procedures**

- Manage work timeframes
- Manage to convene meeting
- · Decision making at workplace
- Set and meet own work priorities at instant
- Develop and maintain professional competence
- Follow and implement work safety requirements

#### **Perform Advanced Communication**

- Demonstrate professional skills
- Plan and Organize work
- Provide trainings at workplace

#### **Develop Advance Computer Application Skills**

- Manage Information System to complete a task
- Prepare Presentation using computers
- Use Microsoft Access to manage database
- Develop graphics for Design

#### Manage Human Resource Services

- Determine strategies for delivery of human resource services
- Manage the delivery of human resource services
- Evaluate human resource service delivery
- Manage integration of business ethics in human resource practices

#### **Develop Entrepreneurial Skills**

- Develop a business plan
- Collect information regarding funding sources
- Develop a marketing plan
- Develop basic business communication skills

#### **Operate Excavator**

- Safety requirements
- Sets up equipment
- Install attachments
- Operate controls of Wheel Excavator
- Operate controls of Crawler Excavator
- Create slopes
- Build, excavate, and maintain haul roads and ramps
- Create mass excavation.
- Excavate trenches
- Excavate ditches
- Load trucks
- Cut and fills materials
- Stock piles materials
- Excavate and back fills trenches
- Hoist objects
- Clear land
- Demolish buildings and other structures
- Performance of machines

#### Operate Motor Grader

- Operate controls
- Grading fundamentals
- Form and handle windrows
- Strip surface materials
- Maintain access roads
- Create slopes
- Create ditches
- Create shouldering
- Form sub-Grade
- Finish grading

Course	
Execution	
Plan	

**Total Duration of Course** 

Class Hours

Practical

Theory

Weekly Hours Total Contact Hours : 03 Months (13 Weeks) : 04 Hours per Day

: 20% : 80%

: 24 Hours Per Week

: 312 Hours

Companies	1. Construction Sector
	2. Industrial Sector
In The	3. Supervisors
III THE	
Respective	
Trade	
Job	Comply with Work Health and Safety Policies
Opportunities/	Obey the Workplace Policies and Procedures
Job Titles	Follow Basic Communication Skills (General)
	Operate Computer Functions (General)
	Identify Machine & its Attachments
	Comply with Personal Health and Safety Guidelines
	Communicate the Workplace Policy and Procedure
	Perform Basic Communication (Specific)
	Perform Basic Computer Application (Specific)
	Maintain Machine (with Engine Off)
	Maintain Machine (with Engine Running)
	Park Machines
	Apply Work Health and Safety Practices (WHS)
	Identify and Implement Workplace Policy and Procedures
	Communicate at Workplace
	Perform Computer Application Skills
	Manage Personal Finances
	Transport Machines
	Operate Bulldozer
	Operate wheel Loader
	Contribute to Work Related Health and Safety (WHS) Initiatives
	Analyze Workplace Policy and Procedures
	Perform Advanced Communication
	Develop Advance Computer Application Skills
	Manage Human Resource Services
	Develop Entrepreneurial Skills
	Operate Excavator
	Operate Grader
No of	
Students	25
Learning Place	Classroom / Training Area
Instructional	
Resources	
L	

## **MODULES**

Scheduled Weeks	Scheduled Days	Module Title	Learning Units	Remarks
	Day-1	Comply with Work Health and Safety Policies	Students are introduced to:  Comply with Work Health and Safety Policies  Work safely at workplace  Communicate work health and safety(WHS) assess at work place.  Minimize risks to personal safety at work place  Minimize risks to public safety	Home Assignment Task 1 Details may be seen at Annexure-I
Week-1	Day-2	Obey the Workplace Policies and Procedures & Motivational Lecture	Obey the Workplace Policies andProcedures  Obey the workplace personal appearance and hygiene Follow work ethics Demonstrate the work place behaviors Communicate workplace policy &procedures Review the implementation of workplace policy & procedures	-
	Day-3 & 4	Follow Basic Communication Skills (General)	Follow Basic Communication Skills (General)  Adopt effective listening to skills  Develop nonverbal communication withpeers  Prepare for Interview to get a job  Use communication platform at workplace  Identify communication barriers toimprove interpersonal skills	Task 2
	Day-5	Operate Computer Functions (General) & Success Stories	Operate Computer Functions (General) Set up the computer for use Organize files in folder Shut down computer system	Task 3
	Day-1 & 2	Identify Machine &its Attachments And Motivational Lecture	Students are introduced to:  Identify Machine & its Attachments  Identify machine and its sizes.  Identify components & attachments  Identify capacities & capabilities ofmachine  Identify basic tools and supplies associated with machines  Maintain inventory of tools and equipment.	Task 4  Details may be seen at Annexure-I
Week-2	Day-3 & 4	Comply with Personal Healthand Safety Guidelines	Comply with Personal Health and SafetyGuidelines  Identify Personal Hazards at work place Apply personal protective and safetyequipment (PPE) Comply with occupational safety andhealth (OSH) Dispose of hazardous waste/materialsfrom the designated area	Task 5
	Day-5	Communicate the Workplace Policyand Procedure And Success Stories	Communicate the Workplace Policy and Procedure  Identify workplace communication procedures.  Communicate at workplace.	Task 6  Monthly  Test 1

Scheduled Weeks	Scheduled Days	Module Title	Learning Units	Remarks
	Day-1	Perform Basic Communication (Specific)	Students are introduced to: Perform Basic Communication (Specific)  Communicate in a team to achieve intended outcomes  Follow Supervisor's instructions as per Organizational SOPs  Develop Generic communication skills at workplace	
	Day-2	Perform Basic Computer Application & Motivational Lecture	Perform Basic Computer Application(Specific)  Create Word Documents Create Excel Documents Use internet for Browsing	Task 7 Details may be seen at Annexure-I
Week-3	Day-3		Maintain Machine (with Engine Off) Inspect and Service of lubrication system Inspect and Service electrical system Inspect and Service hydraulic system Inspect and Service cooling system Inspect and Service of air intake system	Task 8
	Day-4	Maintain Machine (with Engine Off) & Success Stories	Maintain Machine (with Engine Off)  Inspect and Service of fuel system Inspect and Service of suspension system Inspect and Service of drive train Inspect and Service of braking system Inspect and Service of load bearing structure	Task 9
	Day-5		Maintain Machine (with Engine Off) Inspect and Service of operator station/Cab Inspect Equipment safety Inspect and Service of attachments Inspect and Service of supporting pneumatic (Airfilled) system	
	Day-1	Maintain Machine (with Engine	Students are introduced to:  Maintain Machine (with Engine Running)  Monitor warning systems	Task 10 Task 11
		Running) Motivational Lecture	<ul> <li>Warm up engine</li> <li>Cycle equipment functions</li> <li>Scheduled Maintenance Requirements</li> <li>Logbook</li> </ul>	Details may be seen at Annexure-I
Week-4	Day-2 & 3	Park Machines	Park Machines  Clean under carriage and attachments before parking  Park equipment in appropriate location  Shut down and secure equipment  Housekeeping tasks  Visual Inspection	Task 12
	Day-4	Apply Work Health and SafetyPractices (WHS)	Apply Work Health and Safety Practices (WHS)     Implement safe work practices at work place     Participate in hazard assessment activities at a work place     Follow emergency procedures at workplace     Participate in OHS consultative processes	Task 13
	Day-5	Identify and Implement Workplace Policy and Procedures Success Stories	Identify and Implement Workplace Policy and Procedures  Identify workplace policy & procedures  Implement workplace policy & procedures  Communicate workplace policy & procedures  Review the implementation of workplace policy & procedures	Task 14 Task 15

Scheduled Weeks	Scheduled Days	Module Title	Learning Units	Remarks	
	Day-1	Communicate at	Students are introduced to:	Task 16	
		Workplace	Communicate at Workplace	Task 17	
		& Motivational	Identify workplace policy & procedures		
		Lecture	- implement well-place pelicy & procedures		
			Communicate workplace policy & procedures	Details may be seen at	
			Review the implementation of workplace policy &	Annexure-I	
			procedures	Alliexule-I	
			Perform Computer Application Skills		
		Perform Computer	Prepare In-page documents as per required		
	D 0	Application Skills	information	Table 40	
	Day-2	& Success Stories	Prepare Spreadsheets as per required information	Task 18	
			Use MS Office as per required information		
Week-5			Perform computer graphics in basic applications		
			Create Email account for communications		
		Managa Daysanal	Manage Personal Finances	Tool: 10	
	Day-3	Manage Personal	Develop a personal budget	Task 19	
		Finances	Develop long term personal budget	Task 20	
			Identify ways to maximize futurefinances		
			Transport Machines		
			Prepare to load machine and attachments		
			Loading machine and attachments     Capazing machine and attachments	Took 24	
	Day-4 & 5	Transport Machines	Securing machine and attachments	Task 21 Task 22	
	-	'	Unload or assist with unloading machine and     attachments.		
			attachments		
			Prepare rubber-tired machine for road travel     Drive rubber tired machine on public roads		
Week 6			Drive rubber-tired machine on public roads     Midterm Test	1	
Week o			Operate Bulldozer		
	Day-1		Operate Controls		
	Day-1		Strip and Stockpile Surface Materials		
	Day-2	Operate Bulldozer	Cut and Fill Material	Task 23	
	-		Create Slopes	TAGK 20	
Week-7	Day-3	Motivational Lecture	Create Ditches	Task 24	
			Spread Ballast		
	Day-4	Success Stories	Rip Dense Materials		
			Clear Land		
	Day-5		Push Scraper	Task 25	
			Operate Wheel Loader		
	Day-1	Operate Wheel	Install Attachments		
	Day-1	Loader	Operate Controls		
	Day-2		Dig, Carry (Tram) & Stockpile Materials		
	Day 2	Motivational Lecture	Place and Spread Materials	Task 26	
	-		Backfill Trenches & Excavate	Task 27	
	Day-4		Load Trucks	Task 28	
			Contribute to Work Related Health and Safety (WHS)	1461(26	
Week-8			Initiatives		
		Contribute to Work	Contribute to initiate work-related health and safety		
		Related Health and	measures		
	_	Safety (WHS)	Contribute to establish work-related health and safety		
	Day-5	Initiatives	measures	Task 29	
			Contribute to ensure legal requirements of WHS		
		Success Stories	measures		
				i	
			Contribute to review WHS measures		

Scheduled Weeks	Scheduled Days	Module Title	Learning Units	Remarks
Week 9 & 10	-	On Job Training (2Weeks)	<ul> <li>On Job Training for 2 Weeks:</li> <li>Aims to provide 2 weeks industrial training to the Trainees as part of overall training program</li> <li>Ideal for the manufacturing trades</li> <li>As an alternate to the projects that involve expensive equipment</li> <li>Focuses on increasing Trainee's motivation, productivity, efficiency and quick learning approach.</li> </ul>	
	Day-1	Analyze Workplace Policy and Procedures	Students are introduced to:  Analyze Workplace Policy and Procedures  Manage work timeframes  Manage to convene meeting  Decision making at workplace  Set and meet own work priorities at instant  Develop and maintain professional competence  Follow and implement work safety requirements	Task 30
Week-11	Day-2	Perform Advanced Communication & Motivational Lecture	Perform Advanced Communication  • Demonstrate professional skills  • Plan and Organize work  • Provide trainings at workplace	Task 31
	Day-3	Develop Advance Computer	Develop Advance Computer Application Skills     Manage Information System to complete a Task     Prepare Presentation using Computers	Task 32
	Day-4	Application Skills	<ul><li>Use Microsoft Access to Manage Database</li><li>Develop graphics for Design</li></ul>	
	Day-5	Manage Human Resource Services & Success Stories	Manage Human Resource Services  Determine strategies for delivery of HR Services  Manage the delivery of human resource services  Evaluate human resource service delivery  Manage integration of business ethics in human resource practices	Task 33
	Day-1	Develop Entrepreneurial Skills & Motivational Lecture	Students are introduced to:  Develop Entrepreneurial Skills  Develop a business plan  Collect information regarding funding sources  Develop a marketing plan  Develop basic business communication skills	Task 34
	Day-2		Operate Excavator	
Week-12	Day-3		<ul> <li>Operate Controls of Crawler Excavator</li> <li>Create Slopes</li> <li>Build, Excavate, and Maintain Haul Roads and Ramps</li> <li>Create Mass Excavation</li> </ul>	
		Operate Excavator & Success Stories	<ul> <li>Excavate Trenches</li> <li>Excavate Ditches</li> <li>Load Trucks</li> <li>Cut and Fills Materials</li> <li>Stock Piles Materials</li> </ul>	Task 35 Task 36
	Day-5		<ul> <li>Excavate and back Fills Trenches</li> <li>Hoist Objects</li> <li>Clear Land</li> <li>Demolish Buildings and other Structures</li> <li>Performance of Machines</li> </ul>	

Scheduled Weeks	Scheduled Days	Module Title	Learning Units	Remarks
	Day-1		Students are introduced to:  Operate Controls Grading Fundamentals Form and Handle Windrows	Task 37
	Day-2	Operate Grader	<ul> <li>Strip Surface Materials</li> <li>Cut and Fill Material</li> <li>Maintain Access Roads</li> <li>Create Slopes</li> </ul>	
Week-13	Day-3		Create Ditches Create Shouldering Form Sub Grade Finish Grading Clear Snow and Ice	Task 38
	Day-4	Plan Work& Motivational Lecture & Success Stories	<ul> <li>Plan Work</li> <li>Site Hazards</li> <li>Work Procedures</li> <li>Symbols and Markings</li> <li>Survey Markers, Construction Grades and Stakes</li> <li>Drawings and Plans</li> </ul>	Task 39 Task 40
	Day-5		<ul> <li>Environmental Concerns with Site Personnel</li> <li>Grades and Stakes</li> <li>Grade Checking Devices</li> <li>Review Job Specifications and Safety Considerations with Site Per</li> </ul>	

## **Annexure-I**

## TASKS FOR CERTIFICATE IN HEAVY MACHINERY OPERATOR

Week	Task No	Description	
	Task-1	Explore Work Health and Safety Policies according to construction sector	
Week-1	Task-2	Follow Basic Communication Skills related to heavy machinery	
	Task-3	Operate Computer Functions related to heavy machinery	
	Task-4	Identify Machines and Its attachments	
Week-2	Task-5	Explore Personal Health and Safety Guidelines	
WOOK 2	Task-6	Demonstrate the Workplace Policy and Procedure	
	Task-0	Operate Basic Computer Application	
) March 2			
Week-3	Task-8	Inspect and Service cooling system	
	Task-9	Inspect and Service of lubrication system	
	Task-10	Check Warm up engine	
	Task-11	Check Logbook	
Week-4	Task-12	Perform Visual inspection of machine	
	Task-13	Follow emergency procedures at workplace	
	Task-14	Identify workplace policy & procedures	
	Task-15	Communicate workplace policy & procedures	
	Task-16	Communicate within the organization	
	Task-17	Communicate outside the organization	
	Task-18	Create Email account for communications	
Week-5	Task-19	Develop a personal budget	
	Task-20	Identify ways to maximize future finances	
	Task-21	Prepare to load machine and attachments	
	Task-22	Prepare rubber-tired machine for road travel	
Week-6		Midterm	
	Task-23	Cut and fill material	
Week-7	Task-24	Create slopes	
	Task-25	Clear land	
	Task-26	Place and spread materials	
Week-8	Task-27	Backfill trenches & excavate	
week-o	Task-28	Load trucks	
	Task-29	Contribute to review WHS measures	
Week-9		Project Week	
Week-10	Task-30	Follow and implement work safety requirements	
	Task-30	Plan and Organize work	
Week-11	Task-32	Manage Information System to complete a task	
	Task-33	Evaluate human resource service delivery	
	Task-34	Develop a marketing plan	
Week-12	Task-35	Load trucks	
	Task-36	Cut and fills materials	
	Task-37	Create shouldering	
Week-13	Task-38 Task-39	Form Sub-Grade Identify Site hazards	
	Task-39	Apply Symbols and Markings	
	1 a5K-4U	propris cymbols and markings	

## **Heavy Machinery Operator**

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=Qi6Xn7yKIIQ

Hisham Sarwar Motivational Story | Pakistani Freelancer

https://www.voutube.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

Success Story of a 23 Year - Old SEO Expert | How This Business Works | Urdu HindiPunjabi

https://www.youtube.com/watch?v=tIQ0CWgszI0

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

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

#### SUGGESTIVE FORMAT AND SEQUENCE ORDER OF MOTIVATIONALLECTURE.

#### **Mentor**

Mentors are provided an observation checklist form to evaluate and share their observational feedback on how students within each team engage and collaborate in a learning environment. The checklist is provided at two different points: Once towards the end of the course. The checklists are an opportunity for mentors to share their unique perspective on group dynamics based on various team activities, gameplay sessions, pitch preparation, and other sessions, givinginsights on the nature of communication and teamwork taking place and how both learning outcomes and the student experience can be improved in the future.

#### Session- 1 (Communication):

Please find below an overview of the activities taking place Session plan that will support yourdelivery and an overview of this session's activity.

#### Session- 1 OVERVIEW

#### Aims and Objectives:

- To introduce the communication skills and how it will work
- Get to know mentor and team build rapport and develop a strong sense of a team
- Provide an introduction to communication skills
- Team to collaborate on an activity sheet developing their communication, teamwork, and problem-solving
- Gain an understanding of participants' own communication skills rating at the start of theprogram

Activity:	Participant Time	Teacher Time	Mentor Time
Intro Attend and contribute to thescheduled.			
Understand good communication skills and how it works.			
Understand what good communicationskills mean			
Understand what skills are important forgood communication skills			
Key Learning Outcomes:	Resources:	Enterprise skil	ls developed:
<ul> <li>Understand the communication skills and how works.</li> <li>Understand what communication skills mean</li> <li>Understand what skills are important for communication skills</li> </ul>	<ul><li>Projector</li><li>Computer</li></ul>	<ul><li>Commun</li><li>Self Conf</li><li>Teamwor</li></ul>	idence

Schedule	Mentor Should do
Welcome: 5 Min	Short welcome and ask the <b>Mentor</b> to introduce him/herself.Provide a brief welcome to the qualification for the class.  Note for Instructor: Throughout this session, please monitor thesession to ensure nothing inappropriate is being happened.
Icebreaker: 10 Min	Start your session by delivering an icebreaker, this will enable youand your team to start to build rapport and create a team presentation for the tasks ahead. The icebreaker below should work well at introductions and encouraging communication, but feel free to use others if you think they are more appropriate. It is important to encourage young people to get to know each other and build strong team links during the first hour; this will help to increase their motivation and communication throughout the sessions.
Introduction & Onboarding: 20 Mins	Provide a brief introduction of the qualification to the class and play the "Onboarding Video or Presentation". In your introductioncover the following:
	<ol> <li>Explanation of the program and structure. (Kamyab Jawan Program)</li> <li>How you will use your communication skills in your professionallife.</li> <li>Key contacts and key information – e.g. role of teacher, mentor,and SEED. Policies and procedures (user agreements and" contact us" section). Everyone to go to the Group Rules tab at the top of their screen, read out the rules, and ask everyone to verbally agree. Ensure that the consequences are clear for usingthe platform outside of hours. (9am-8pm)</li> </ol>
	4. What is up next for the next 2 weeks ahead so young peopleknow what to expect (see pages 5-7 for an overview of the challenge). Allow young people to ask any questions about the session topic.
Team Activity Planning:30 Minutes	MENTOR: Explain to the whole team that you will now be planning how to collaborate for the first and second collaborative Team Activities that will take place outside of the session. There will not be another session until the next session so this step is required because communicating and making decisions outside of a session requires a different strategy that must be agreed upon so that everyone knows what they are doing for this activity and how.  • "IDENTIFY ENTREPRENEURS" TEAM ACTIVITY  • "BRAINSTORMING SOCIAL PROBLEMS" TEAMACTIVITY"
	As a team, collaborate on a creative brainstorm on social problems in your community. Vote on the areas you feel most passionate about as a team, then write down what change youwould like to see happen.  Make sure the teams have the opportunity to talk about how they want to work as
	a team through the activities e.g. when they wantto complete the activities, how to communicate, the role of the project manager, etc. Make sure you allocate each young persona specific week that they are the project manager for the weekly activities and make a note of this.  Type up notes for their strategy if this is helpful - it can be includedunderneath the Team Contract.
Session Close:5 Minutes	MENTOR: Close the session with the opportunity for anyone toask any remaining questions.
	Instructor: Facilitate the wrap-up of the session. A quick reminder of what iscoming up next and when the next session will be.

## **Motivational Lectures and Success Stories (Course Outlines)**

Sr #	Topic Title	Contents	Theme
1	Success Stories	<ol> <li>Story of Skill worker who getgood job.</li> <li>Entrepreneur /self-business</li> <li>Freelancer</li> </ol>	<ol> <li>Family Background</li> <li>How to get Training</li> <li>How to get Job</li> <li>Success Trait</li> <li>Few word of advice for youth</li> </ol>
2		<ol> <li>Soft skills</li> <li>Work Ethics</li> <li>Personality Grooming</li> </ol>	Good Habits  Punctuality Honesty Positive attitude  Interpersonal skills  Determinant Consistent Welling worker Team work Initiative Hardworking Creative Enthusiastic Goal oriented Self-motivated Communication Loyalty

## **Motivational Lectures Links**

TOPIC	SPEAKER	LINK
How to FaceProblems In Life	Qasim Ali Shah	https://www.youtube.com/watch?v=OrQte08MI90
Just Control Your Emotions	Qasim Ali Shah	https://www.youtube.com/watch?v=JzFsyJt-w
How to Communicate Effectively	Qasim Ali Shah	https://www.youtube.com/watch?v=PhHAQEGehKc
Your Attitude is Everything	Tony Robbins Les Brown David Goggins Jocko Willink Wayne Dyer Eckart Tolle	https://www.youtube.com/watch?v=5fS3rj6eIFg
Control Your EMOTIONS	Jim Rohn Les Brown TD Jakes Tony Robbins	https://www.youtube.com/watch?v=chn86sH0O5U
Defeat Fear,Build Confidence	Shaykh Atif Ahmed	https://www.youtube.com/watch?v=s10dzfbozd4
Wisdom ofthe Eagle	Learn Kurooji	https://www.youtube.com/watch?v=bEU7V5rJTtw
The Power ofAttitude	Titan Man	https://www.youtube.com/watch?v=r8LJ5X2ejqU
STOP WASTING TIME	Arnold Schwarzenegger	https://www.youtube.com/watch?v=kzSBrJmXqdg
Risk of Success	Denzel Washington	https://www.youtube.com/watch?v=tbnzAVRZ9Xc

## **Annexure-IV**

## **Success Story**

S. No	Key Information	Detail/Description
1.	Self & Family Background	<b>Danyal Saleem,</b> who lives in Mirpur (AJK), is an example of how hard work and perseverance can reaprich rewards when bidding for projects online.
		The graphic designer works exclusively on an online freelancing platform and has earned, on average, <b>US\$20,000</b> per month for the past several months. Butthis isn't a story of overnight success — Danyal has hadto work hard to differentiate himself and stay true to hisgoal.
		It was a full year later, in May 2017, when Danyal finallydecided to jump in. He signed up for one of the numerous sites that connect designers or coders with people or companies that have small projects, like designing a logo or building a website.
		He had already started a small business to help pay forhis college education, so he was nervous and apprehensive about the decision. "I gave myself two or three months at most. If I didn't succeed, then I would go back to running the business as it was showing potential," he says.  If at first, you don't succeed, try try again
2.	How he came on	Certification in graphic designing from STEPS (NAVTTCpartner institute)
	board NAVTTC Training/ or got	
	trained through any	
	othersource	
3.	Post-training activities	<b>Danyal's</b> area of expertise is in <b>Graphic Design</b> . In his first month using Fiverr, he pitched mostly for projects centered around logo designing. But it wasn't so simple.In the first few weeks, he didn't hear back from even a single client, despite pitching for dozens of projects.
		"I needed to understand what worked, so I read blogs, participated in forums, and analyzed profiles of successful freelancers. It was an uphill struggle, but I didn't want to give up," he explains.
		Danyal says he understands why clients would be apprehensive giving projects to untested freelancers. They have hundreds of options to choose from, he explains, and to give a project to someone with no experience requires a strong leap of faith.
		A slow stream of projects started to come Danyal's way. Within a few months, he was landing an average of a hundred projects every month, with a large number of repeat clients. He also expanded the range of his professional services, branching out from logo design tobusiness cards, banners, Facebook cover pages, letterheads, and stationery.
		But he's had to face his fair share of challenges too. The shoddy state of internet infrastructure in his city, Mirpur, threatened to derail his freelancing career. "Sometimes I haven't had connectivity for two days straight," he explains. "That's unthinkable for someonewho makes his livelihood on the internet."

4.	Success Traits	Success Traits (Characteristics)	
		Good Habits	
		<ul><li>Punctuality</li><li>Honesty</li><li>Positive attitude</li></ul>	
		Interpersonal skills	
		<ul> <li>Determinant</li> <li>Consistent</li> <li>Welling worker</li> <li>Team work</li> <li>Initiative</li> </ul>	
		<ul> <li>Hardworking</li> <li>Creative</li> <li>Enthusiastic</li> <li>Goal oriented</li> <li>Self-motivated</li> <li>Communication</li> <li>Loyalty</li> </ul>	
5.	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 forthe same.	

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

- 1. To call a passed out successful trainee of the institute. He will narrate his success story tothe trainees in his own words and meet trainees as well.
- 2. To see and listen to a recorded video/clip (5 to 7 minutes) showing a successful traineeAudio-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, etc) and narrates his/her story in the teacher's own motivationalwords.

<sup>\*</sup>The online success stories of renowned professional can also be obtained from Annex-II

## **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 the importance of work and manifested by determination or desire to work hard.

The following ten work ethics are defined as essential for student success:

- 1. Attendance: Be at work every day possible, plan your absences don't abuse leave time. Be punctual every day.
- 2. <u>Character:</u> 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. <u>Team Work:</u> The ability to get along with others including those you doesn't necessarily like. The ability to carry your weight and help others who are struggling. Recognize when to speak up with an idea 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 lifetime
- 5. <u>Attitude</u>: 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. <u>Productivity</u>: Do the work correctly, quality and timelines are prized. Get along with fellows, cooperationis 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. <u>Organizational Skills</u>: Make an effort to improve, learn ways to better yourself. Time management; utilize time and resources to get the most out of both. Take an appropriate approach to social interactionsat work. Maintains focus on work responsibilities.
- **8.** <u>Communication</u>: Written communication, being able to correctly write reports and memos. Verbal communications, being able to communicate one on one or to a group.
- **9.** <u>Cooperation</u>: 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 work 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.