



## **BLOCK SYLLABUS**

**&**

## **DETAILED SYLLABUS**

**(MOTOR GRADER OPERATOR)  
(3 MONTHS DURATION)**

**APPLIED TECHNOLOGIES INSTITUTE &  
DRIVING SCHOOL NLC DINA**

## **BLOCK SYLLABUS**

### **1. Duration**

Duration of Course	:	13 Weeks
Total Training Hours	:	364 hrs
	:	28 hrs per Week

### **2. Training Methodology**

<b>Serial</b>	<b>Detail</b>	<b>Percentage</b>	<b>Total Hours</b>
1	Theory	20%	72
2	Practical	80%	292
<b>Total Training Hrs</b>			<b>364</b>

## **TRAINING OBJECTIVE**

This course has been designed to prepare students for employment in / out side Pakistan in the field of transport / logistics. After this course students can do the following:-

1. Operate the Construction Machinery skillfully & take necessary safety measures.
2. Observe personal hygiene, tidiness, wear protective clothing. Do first aid treatment
3. Handle tools & equipment
4. Know the handling & operation of Construction Machinery
5. Know the major components of Machinery & their function
6. Perform routine maintenance & periodic servicing
7. Character building of the operator.

## **SKILL PROFICIENCY**

After the completion of course the trainees will be able to:-

1. Operate equipment efficiently with all essential implements by observing necessary precautions & driving rules.
2. Perform skillfully field operation.
4. Select & use of different tools & equipment.
5. Able to remove minor faults.
6. Perform routine maintenance & periodic servicing.
7. Know the procedure to maintain different systems of machine.

<b>SCHEME OF STUDIES</b>				
<b>Sr. No</b>	<b>Modules</b>	<b>Theory</b>	<b>Practical</b>	<b>Total Hours</b>
<b>1</b>	History of Construction Machinery	2	0	2
<b>2</b>	Health & Safety	11	0	11
<b>3</b>	Introduction of Motor Grader and its Different Parts, Use of Different Tools / Equipment	39	0	39
<b>4</b>	Operate Motor Grader	0	265	265
<b>5</b>	Communication Skills required for an Operator	4	9	13
<b>6</b>	Motor Grader Maintenance	7	0	7
<b>7</b>	Revision & Practical Test	9	18	27
<b>Total</b>		<b>72</b>	<b>292</b>	<b>364</b>

DETAIL BLOCK SYLLABUS (OVERVIEW OF THE PROGRAM)					
S. No.	Topic		Theory (Hrs)	Practical (Hrs)	Total (Hrs)
1	Introduction				
	1.1	History of Construction Machinery, General Introduction and Knowledge etc.	2	-	2
2	Health & Safety				
	2.1	General Safety on Site & work Ethics action at Accident Site & First Aid Application	10		10
	2.2	Effects of drugs on life of Operator in particular and Public in general	1		1
3	Introduction of Motor Grader, its Different Parts & Use of Different Tools / Equipment				
	3.1	Introduction Of Motor grader, Basic Operation and Gauges	4	-	4
	3.2	Working Speeds, Blade Degree Function	4	-	4
	3.3	Steering System of Motor Grader	4	-	4
	3.4	System of Diesel Engine	4	-	4
	3.5	Cooling and Fuel System and Lubrication System	5	-	5
	3.6	Kinds of Tyres and Types of Maintenance	5	-	5
	3.7	Types of Power Train and Transmission	7	-	7
	3.8	Introduction of Battery and Electrical System	3	-	3
	3.9	Introduction of Hydraulic System	3	-	3
4	Operate Motor Grader				
	4.1	Basic Motor Grader Operation	-	30	30
	4.2	Starting, Steering & Parking Operation	-	25	25
	4.3	Level Function of Motor Grader	-	50	50
	4.4	Blade Operation of Motor Grader	-	160	160

5	Communication Skills required for an Operator				
	5.1	Oral & Written Communication with Concerns, Conduct of driver and social responsibility / behavior	4	9	13
6	Motor Grader Maintenance				
	6.1	General Maintenance of Motor Grader	3	-	3
	6.2	Air Intake and Exhaust System Maintenance	4	-	4
7	Revision & Practical Test				
	7.1	Revision	5	-	5
	7.2	Written Test	4	-	4
	7.3	Practical Test	-	18	18
Total			72	292	364