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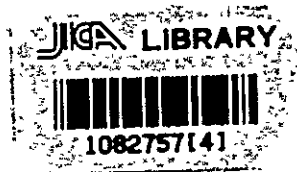
建設工学部

ケニア N.Y.S 技術学院

計画打合せ調査チーム報告書

別冊資料

平成2年2月



51260

国際協力事業団



目 次

1. 電気工学科
2. 電子工学科
3. 機械工学科
4. 建設機械工学科
5. 自動車工学科

1. 電気工学科

・ TIME TABLE

・ COURSE RUN SCHEME

・ Year Run Plan

・ Term Run Plan

National Youth Service Engineering Institute

Approval Principal H.O.D

T I M E T A B L E

Course : Electrical
 Class : Part I
 Term : I
 Batch : 57

	(Mon)	(Tue)	(Wed)	(Thu)	(Fri)
8:00	Engineering Principles (Mech) Magiri No. 5	Engineering Principles (Electrical) Okeeno	Materials & Processes Inove	Installation Technology Okeeno	Mathematics No. 5
10:00	Mathematics No. 5	Electronic System & Components Inove	Installation Technology Okeeno	Electronic System & Components Inove	Installation Technology Okeeno
10:30	Mathematics No. 5				
12:30					

Lunch Break

14:00	Workshop Practice (Technical)	Technical Drawing Okeeno	Mathematics No. 5	Engineering Principles (Electrical) Okeeno	General Study No. 5
15:00	Mechanical w/Shop	Drawing Room			
15:00					
16:00					
18:30					

National Youth Service Engineering Institute

Approval: Principal H.O.D.

COURSE RUN SCHEME

Course: Electrical Batch: 89

From: Sep./89 To: Dec, 1992

YEAR	CODE	SUBJECT	HOURS	1989			1990				1991				1992																				
				9	10	11	12	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9	10	11	12	5	6	7	8	9	10	11	12	
89/90		Mathematics																																	
		Engineering Principles (Mec. & Elec.)																																	
		Installation Technology																																	
		Electronic System & Components																																	
		Drawing																																	
		Materials & Processes																																	
		Workshop Practice (Mechanical)																																	
		Workshop Practice (Electrical)																																	
		General Studies																																	
		First Year Total Hours																																	
90/91		Mathematics																																	
		Electrical Engineering Principles																																	
		Electrical Measurement																																	
		Reliability (Power)																																	
		Electrical Power Equipment																																	
		Installation Technology																																	
		Workshop Practice (Electrical)																																	
		General Studies																																	
			Project																																
		Second Year Total Hours																																	
91/92		Mathematics																																	
		Industrial Organisation & Management																																	
		Generation, Transmission & Distribution of Electrical Energy																																	
		Estimating, Tendering & Engineering Service Contracts																																	
		Project																																	
		Elective Subject																																	
			Third Year Total Hours																																
			Course Total Hours		Course Objective:																														

National Examination 9 240 Term 10 Field Attachment 2 12 20 20 20 20 20 20

National Youth Service Engineering Institute	Approval	Principal	H.O.D
Year Run Plan	Course: <i>Electrical</i>		Year: <i>1989, 90</i>
<i>Part I</i>	From: <i>Jan /89</i>		To: <i>Aug- /90</i>

				1989								1990																							
				9		10		11		12		1		2		3		4		5		6		7		8									
Subject	Code	Topics	H/W	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8
<i>(1) Mathematics</i>	<i>1</i>	<i>Algebra and Graphs</i>	<i>6.5</i>	=====																															
	<i>2</i>	<i>Term I End term examination</i>																																	
	<i>3</i>	<i>Geometry</i>	<i>6.0</i>																																
	<i>4</i>	<i>Trigonometry I</i>	<i>6.0</i>																																
	<i>5</i>	<i>Term II End term examination</i>																																	
	<i>6</i>	<i>Binary Number System</i>	<i>6.0</i>																																
	<i>7</i>	<i>Numerical Methods</i>	<i>6.0</i>																																
	<i>8</i>	<i>Part I National Examination</i>																																	
<i>(2) Engineering Principle (Mechanical)</i>	<i>1</i>	<i>Mass, Force and Weight</i>	<i>2.0</i>	=====																															
	<i>2</i>	<i>Energy</i>	<i>2.0</i>																																
	<i>3</i>	<i>Term I End term examination</i>																																	
	<i>4</i>	<i>Stress and Strain</i>	<i>2.0</i>																																
	<i>5</i>	<i>Dynamics</i>	<i>2.0</i>																																
	<i>6</i>	<i>Term II End term examination</i>																																	
	<i>7</i>	<i>Machines</i>	<i>2.0</i>																																
	<i>8</i>	<i>Heat</i>	<i>2.0</i>																																
	<i>9</i>	<i>Part I National Examination</i>	<i>2.0</i>																																

==== PLAN ——— REMARKS

National Youth Service Engineering Institute				Approval		Principal		H.O.D			
<h1>Year Run Plan</h1>				Course: <i>Electrical</i>		Year: <i>1989, 90</i>					
				From: <i>Sep / 89</i>		To: <i>Aug / 90</i>					
				1989				1990			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
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				4				8			
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				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
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				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
				10				2			
				11				3			
				12				4			
				1				5			
				2				6			
				3				7			
				4				8			
				5				9			
				6				10			
				7				11			
				8				12			
				9				1			
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				8				12			
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				6				10			
				7				11			
				8				12			
				9				1			
				10				2			

National Youth Service Engineering Institute				Approval		Principal		H.O.D																							
<h1>Year Run Plan</h1>				Course: <i>Electrical</i>		Year: <i>1989-90</i>																									
				From: <i>Sep/89</i>		To: <i>Aug/90</i>																									
				1989				1990																							
				9		10		11		12		1		2		3		4		5		6		7		8					
				1 2 3 4 5 6 7 8		9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52																							
Subject	Code	Topics	H/W																												
<i>(10) General Studies</i>	<i>1</i>	<i>Language (English)</i>	<i>2.5</i>																												
	<i>2</i>	<i>Use of arguments</i>	<i>2.5</i>																												
	<i>3</i>	<i>Formal meetings</i>	<i>2.5</i>																												
	<i>4</i>	<i>Changing attitudes in Kenya</i>	<i>2.5</i>																												
	<i>5</i>	<i>Term I, End term examination</i>																													
	<i>6</i>	<i>Introduction to politics</i>	<i>2.5</i>																												
	<i>7</i>	<i>Central Government</i>	<i>2.5</i>																												
	<i>8</i>	<i>Introduction to economics</i>	<i>2.5</i>																												
	<i>9</i>	<i>Earning and spending</i>	<i>2.5</i>																												
	<i>10</i>	<i>Business organisation and industrial relations</i>	<i>2.5</i>																												
	<i>11</i>	<i>Term II, End term examination</i>																													
	<i>12</i>	<i>The mass media</i>	<i>2.5</i>																												
	<i>13</i>	<i>Evolution</i>	<i>2.5</i>																												
	<i>14</i>	<i>The environment</i>	<i>2.5</i>																												
	<i>15</i>	<i>A short history of science and technology</i>	<i>2.5</i>																												
	<i>16</i>	<i>Part I, National Examination</i>	<i>2.5</i>																												

PLAN
 REMARKS

National Youth Service Engineering Institute

Term Run Plan

Part I Term I

Approval: Principal | H.O.D

Course: *Electrical* | Batch: *1989*

From: *Sep/89* | To: *Dec/89*

Engineering Principle (Electrical)			Month	9	10	11	12									
Topics	Code	Sub-Topics	Week	1	2	3	4	5	6	7	8	9	10	11	12	13
	15	Kirchhoff's Law	2.0 Thu 2.5								<input type="checkbox"/>	<input type="checkbox"/>				
	16	Superposition	2.5									<input type="checkbox"/>				
	17	Relationship between electrical, mechanical and thermal unit	2.0									<input type="checkbox"/>				
	18	Joule's law	2.5										<input type="checkbox"/>			
	19	Methods of transfer of power and energy in different forms	2.0										<input type="checkbox"/>			
	20	Cost of energy	2.5											<input type="checkbox"/>		
(2) Cells	1	Chemical effect of current	2.0											<input type="checkbox"/>		
	2	Application of Faraday's law	2.5											<input type="checkbox"/>		
	3	Series and parallel connection of cells	2.0												<input type="checkbox"/>	
	4	Internal resistance of cells	2.5												<input type="checkbox"/>	
(3) End term examination			2.0													<input type="checkbox"/>

National Youth Service Engineering Institute

Term Run Plan

Approval: Principal | H.O.D

Course: *Electrical* | Batch: *1989*

From: *Sep/89* | To: *Dec/89*

Part I Term I

Electronic Systems and Components				Month	Part I Term I													
				Month	9			10			11			12				
				Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H\,D															
(1) Transducers	1	Types of transducers	2.0	H														
	2	Electro-Mechanical transducers	2.0		H	H												
	3	Photo-Electric transducers	2.0			H	H											
	4	Thermo-Electric transducers	2.0				H											
(2) Passive Device	5	Resistors	2.0					H	H									
	6	Capacitors	2.0						H	H								
	7	Inductors	2.0							H	H							
(3) Active Device	8	Intrinsic semi-conductor	2.0												H			
	9	P-type, N-type Semi conductor	2.0												H			
	10	P-N junction	2.0													H		
	11	Transistor	2.0													H		
	12	J FET	2.0													H		
	13	IG FET	2.0													H		
	14	Single phase half wave rectifier	2.0														H	
	15	Single phase full wave rectifier	2.0														H	
	16	Smoothing circuit	2.0															H
	17	Voltage multiplying circuit	2.0															H
	18	DC biasing technique	2.0															H
	19	Small signal amplifiers	2.0															H
	20	Load lines	2.0															H
	21	Current, voltage and power gain	2.0															H

(4) Term-end Examination

2.0

2. 電子工学科

- TIME TABLE
- COURSE RUN SCHEME
- Year Run Plan
- Term Run Plan

National Youth Service Engineering Institute

T I M E T A B L E

		Approval		Principal		H.O.D	
		Course ; ELECTRONICS		Class ; 1		Batch ; 1	
		Term ; 1st					
		(Mon)	(Tue)	(Wed)	(Thu)	(Fri)	
8:00	Subject	Engnerg Science	Radio & Electrcs, Practical	Engnerg Princi- ples Practical	Engnerg Princi- ples	Maths	
10:00	Lecture RM	L 11	E 07	E 06	E 11	E 11	
10:30	Subject	Maths	Radio & Electrcs, Practical	Engnerg Princi- ples Practical	Processes	Engineering Principles	
2nd	Lecture RM						
12:30	Lecture RM	L 13 a,b	E 07	E 06	E 05	E 11	
Lunch Break							
14:00	Subject	Drawing	Processes	Maths	Radio & Electronics	General Study	
3rd	Lecture RM						
15:00	Lecture RM	L 12	E 05	L 13 a,b	E 11	L 13 a,b	
15:00	Subject	Drawing	Processes	Maths	Radio & Electronics	General Study	
4th	Lecture RM						
16:30	Lecture RM	L 12	E 05	L 13 a,b	E 11	L 13 a,b	

National Youth Service Engineering Institute

Approval | Principal | H.O.D.

COURSE RUN SCHEME

Course; *Electronics* | Batch;

From: *11/9, 89* | To:

YEAR	CODE	SUBJECT	HOURS	1989				1990								1991								1992											
				9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
89/90	1.	Mathematics	253.5																																
	2.	Engineering Science	97.5																																
	3.	General Studies and Report	97.5																																
	4.	Technical Drawing	97.5																																
	5.	Technical Processes	175.5																																
	6.	Engineering Principles (Physics)	156.0																																
	8.	Radio and Electronics	97.5																																
	17.	Engineering Principles (Experiment)	156.0																																
	18.	Radio and Electronics (Experiment)	156.0																																
		First Year Total Hours	1267.5																																
90/91	1.	Mathematics	195.0																																
	7.	Electrical Principles	156.0																																
	8.	Radio and Electronics	97.5																																
	9.	Testing Methods	156.0																																
	10.	Radio and Television	97.5																																
	11.	Industrial Electronics	97.5																																
	12.	Radio and Electronics (Experiment)	156.0																																
	19.	Radio and Television (Experiment)	156.0																																
	20.	Industrial Electronics (Experiment)	156.0																																
		Second Year Total Hours	1267.5																																
91/92	1.	Mathematics	195.0																																
	12.	F.M. and Multiplex Stereo	97.5																																
	13.	Colour Television	97.5																																
	14.	Electronic Supervisory	156.0																																
	15.	Microwave and Semiconductors	156.0																																
	21.	F.M. Technology (Experiment)	156.0																																
	22.	Colour Television (Experiment)	156.0																																
	23.	Electronic Supervisory	156.0																																
16.	Graduation Study	156.0																																	
		Third Year Total Hours	1267.5	Course Objective:																															
		Course Total Hours	3802.0																																

National Youth Service Engineering Institute

Approval | Principal | H.O.D

Year Run Plan

Course: Electronics | Batch: _____

From: 11/09, 89 | To: 20/07, 90

			Year		1989												1990											
			Month																									
Subject	Code	Topics	H	W	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8				
1. Mathematics	1-1	Aid to Calculations			=====																							
	1-2	Geometry							=====																			
	1-3	Trigonometry							=====																			
	1-4	Algebra											=====															
	1-5	Graphs							=====																			

===== Plan _____ Remarks

National Youth Service Engineering Institute			Approval	Principal	H.O.D
Year Run Plan			Course: <u>Electronics</u>		Year: <u>1st</u>
			From: <u>11/09, 89</u>		To: <u>2/09, 90</u>

Subject	Code	Topics	H/W	1989								1990															
				9		10		11		12		1		2		3		4		5		6		7		8	
3. General Study ; <i>English in Electronics</i>	3-1	Conductor, insulator, semi-conductor	10/2 ⁵	=====																							
	3-2	Circuit elements	10/2 ⁵			=====																					
	3-3	The D.C. motor	10/2 ⁵					=====																			
	3-4	The cathode ray tube	10/2 ⁵					=====						=====													
	3-5	The moving-coil meter	10/2 ⁵							=====																	
	3-6	Process control systems	10/2 ⁵									=====															
	3-7	Semiconductor diode	15/2 ⁵											=====													
	3-8	Logic gates	20/2 ⁵															=====									

National Youth Service Engineering Institute

Approval	Principal	H.O.D
Course: Electronics		Batch: 1st
From: 11/09, 89		To: 20/09, 90

Year Run Plan

			Year	1989												1990																									
			Month	9 10 11 12 1 2 3 4 5 6 7 8												1 2 3 4 5 6 7 8																									
Subject	Code	Topics	Hrs.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
Technical Processes	5-1	Young's Module	10.0	==																																					
	5-2	Materials	10.0		==																																				
	5-3	Soldering	25.0			==	==																																		
	5-4	Accuracy	10.0							==																															
	5-5	Insulators	25.0							==					==																										
	5-6	Screws, Lock nuts	30.0														==	==																							
	5-7	Electrical Parts	35.5																==	==																					
	5-8	Electro-chemicals	15.0																				==																		
	5-9	Heat	15.0																					==																	

== plan — Remarks

National Youth Service Engineering Institute

Approval: _____

Principal: _____

H.O.D: _____

Year Run Plan

Course: Electronics

Year: 1st

From: 11/09, 89

To: 20/07, 90

			Year	1989								1990											
			Month	9	10	11	12	1	2	3	4	5	6	7	8								
Subject	Code	Topics	H/W	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8
18. Radio and Electro- mics Practice	18-1	Block diagrams	8/4	✓																			
	18-2	The essential requirements for the transmission infor- mation	8/4		✓																		
	18-3	Amplitude modulation	8/4		✓																		
	18-4	Demodulation of amplitude modulation	8/4		✓																		
	18-5	Super-heterodyne receiver	20/4			✓	✓																
	18-6	Semiconductors	8/4					✓															
	18-7	Frequency response	8/4					✓															
	18-8	Feed back	8/4					✓															
	18-9	Bandwidth	8/4					✓															
	18-10	Oscillators	20/4							✓	✓												
	18-11	Oscilloscopes	8/4								✓												
	18-12	Time, constant	8/4								✓												
	18-13	Cathode-ray tube	8/4								✓												
	18-14	Power Suppliers	8/4								✓												
	18-15	Fault Diagnosis	20/4								✓	✓											

PLAN
 REMARKS

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course: Electronics		Batch: 5 th
From: 11/09, 89		To: 02/12, 89

Subject 4: Technical Drawing		Month	9							10			11			12
(175 ⁺ Hrs)		Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H.D	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	2- ⁺	
4-1	4-1-1	Drawing materials		≡	≡											
Elements of perspective, ortho-graphic and iso-metric projection	4-1-2	How to use drafting board				≡	≡									
	4-1-3	Perspective, orthographic projection						≡	≡							
	4-1-4	Isometric Projection								≡	≡					
4-2	4-2-1	Production of dimension sketches from description										≡	≡	≡	≡	

≡ Plan ≡ Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D									
Term Run Plan				Course:	Batch:										
				From: 11/09, 89	To: 8/12, 89										
5. Technical Processes		Month	9	10				11		12					
(175-5 Hrs)		Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
5-1	5-1-1	The meaning of stress	4.5												
Young's Module		and strain													
	5-1-2	Tensile, compressive	4.5												
		and shear stress													
	5-1-2	Relationship between	4.5												
		stress and strain													
		whithin the elastic													
		limit													
	5-1-3	Typical load extension	4.5												
		graphs for ductile													
		and brittle materials													
	5-1-4	Simple physical limita-	4.5												
		tions													
	5-1-5	Simple statement of	4.5												
		Young's modulus													
	5-1-5	Meaning of safety	4.5												
		factor													
5-2	5-2-1	Properties and selection	4.5												
Electrical mate-		of ferrous non-ferrous													
rials		and insulating materials													
		used in the electronics													

== plan == Remarks

National Youth Service Engineering Institute			Term Run Plan												Approval	Principal	H.O.D					
															Course: <i>Electronics</i>		Batch:					
															From:		To:					
			9			10					11				12							
			1	2	3	4	5	6	7	8	9	10	11	12	13							
Topics	Code	Sub-Topics	H\ D																			
		Industry																				
<i>t-3</i>	<i>t-3-1</i>	Metal joining by sold- ering and brazing	<i>4.5</i>																			
Soldering																						
	<i>t-3-2</i>	Common brazing spel- ters and solders	<i>4.5</i>																			
	<i>t-3-3</i>	Types of fluxes used in electrical work	<i>4.5</i>																			
	<i>t-3-4</i>	Problems experienced in soldering light cables electrical and electronic devices : overheating, damaging sleeving, and dry joints.	<i>1.5</i>																			
	<i>t-3-5</i>	Flow soldering, dip soldering and use of solder pots.	<i>1.0</i>																			
	<i>t-3-6</i>	Crimping, wrapping and other light cables connection methods	<i>1.0</i>																			

== Plan ——— Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D									
<h1>Term Run Plan</h1>				Course: <i>Electronics</i>		Batch: <i>5th</i>									
				From: <i>11/09, 89</i>		To: <i>8/12, 89</i>									
				Subject: <i>b. Engineering Principles</i>	Month	9	10	11	12						
<i>52 Hrs / (156 Hrs)</i>		Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H	4-0	4-0										
<i>b-1. Ohm's Law</i>	<i>b-1-1</i>	<i>Elementary idea of direct and alternating current.</i>	<i>1-0</i>		≡										
	<i>b-1-2</i>	<i>Electrical current as a flow of charge</i>	<i>1-0</i>		≡										
	<i>b-1-3</i>	<i>Difference between conductors, semiconductors and insulators.</i>	<i>1-0</i>		≡										
	<i>b-1-4</i>	<i>The em.f. as driving force</i>	<i>1-0</i>		≡										
	<i>b-1-5</i>	<i>Ohm's Law</i>	<i>1-0</i>			≡									
	<i>b-1-6</i>	<i>Units of current, charge, potential difference, resistance and conductors</i>	<i>1-0</i>			≡									
	<i>b-1-7</i>	<i>Heat energy produced by current flow</i>	<i>1-0</i>			≡									
	<i>b-1-8</i>	<i>Resistors in series and parallel</i>	<i>1-5</i>			≡									
	<i>b-1-9</i>	<i>Exercise</i>	<i>1-5</i>				≡								
	<i>b-2. Resistive materials</i>	<i>b-2-1</i>	<i>Relationship between resistance and conductor</i>	<i>3-5</i>			≡								

≡ plan ≡ Remarks

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course: <i>Electronics</i>		Batch:
From:	To:	

Subject: <i>6. Engineering Principles</i>				Month	9	10								11		12	
				Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H														
	<i>b-2-2</i>	<i>Resistivity</i>	<i>3.0</i>														
	<i>b-2-3</i>	<i>Effect of temperature on resistance</i>	<i>3.5</i>														
<i>b-3. Primary and Secondary cells</i>	<i>b-3-1</i>	<i>Lead-acid and nickel alkaline cells</i>	<i>1.5</i>														
	<i>b-3-2</i>	<i>E.M.F. of a cell, internal resistance, effect on terminal voltage</i>	<i>1.5</i>														
	<i>b-3-4</i>	<i>Cells in series and parallel</i>	<i>1.5</i>														
	<i>b-3-5</i>	<i>practical forms of primary and secondary batteries</i>															
	<i>b-3-6</i>	<i>Principles of charging methods of secondary batteries</i>	<i>2.5</i>														
	<i>b-3-7</i>	<i>Exercise</i>	<i>2.0</i>														
<i>b-4. Magnetism</i>	<i>b-4-1</i>	<i>Description of the magnetic field</i>	<i>1.5</i>														

==== plan ——— Remarks

National Youth Service Engineering Institute				Approval		Principal		H.O.D																																															
Term Run Plan				Course: <i>Electronics</i>				Batch:																																															
				From:				To:																																															
Month				9				10				11				12																																							
Week				1				2				3				4				5				6				7				8				9				10				11				12				13			
Topics	Code	Sub-Topics	H\,D																																																				
	b-4-a	Factors affecting the magnetizing force.	2-0														=																																						
	b-4-b	Flux density resulting from a coil carrying a current	2-0														=																																						
	b-4-c	The units of flux and flux-density	2-0														=																																						
	b-4-d	Force on a current-carrying conductor in a field.	1-5														=																																						
	b-4-e	Exercise	2-0														=																																						
b-5. Amperemeter and Voltage meter.	b-5-1	principles and simple descriptive treatment of moving coil and moving iron instruments	2-5														=																																						
	b-5-2	D.C. ammeters and Voltmeters; applications	2-5														=																																						
	b-5-3	The effect of instrument resistance on circuit conditions.	2-5														=																																						

== Plan == Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D													
Term Run Plan				Course: <i>Electronics</i>		Batch:													
				From:		To:													
Month				9				10				11				12			
Week				1	2	3	4	5	6	7	8	9	10	11	12	13			
Topics	Code	Sub-Topics	H/D																
	6-5-4	Shunts and multipliers, multirange and multi-purpose instruments	2-5																
6-6. Farady's Law	6-6-1	Induced e.m.f. in moving and stationary circuits.																	
	6-6-2	Farady's Law of electromagnetic induction; introduction to Lenz's Law																	
	6-6-3	Eddy current and their need for laminated core																	
	6-6-4	Kirchhoff's laws and superposition principles applied series-parallel circuits																	
6-7. Magnetic circuits	6-7-1	Magnetomotive force, magnetizing force																	

— Plan — Remarks

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D.
Course: Electronics		Batch: 1st
From: 11/09, 89		To: 08/12, 89

Subject: Radio & Electronics				Month			10						11			12		
32.5 Hrs / (97.5 Hrs)				Week														
Topics	Code	Sub-Topics	Hrs	1	2	3	4	5	6	7	8	9	10	11	12	13		
8-1	P-1-1	Components used in	0.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		
Block diagrams		radio transmitters																
		and their work																
	P-1-2	Schematic symbols of	0.5		2.5													
		components used in																
		radio transmitters																
	P-1-3	Electrical signals and	0.5		2.5													
		their work																
	P-1-4	Block diagram of radio	0.5		2.5													
		transmitter and the																
		work of each block.																
	P-1-5	Block diagram of radio	0.5		2.5													
		receiver and the work																
		of each block																
	P-1-7	Schematic symbols of	0.5		2.5													
		components used in																
		television receiver																
	P-1-8	Block diagram of tele-	0.5		2.5													
		vision receiver and																
		the work of each block																
	P-1-9	Schematic symbols	0.5		2.5													

Plan Remarks

National Youth Service Engineering Institute				Approval Principal H.O.D												
Term Run Plan				Course:		Batch:										
				From:		To:										
Month				9		10		11		12						
Week				1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H.O.D													
		of components used in digital computer systems														
	P-1-10	Block diagram of digital computer systems and the work of each block	0-5													
	P-1-11	Digital signals and their work	0-5													
	P-1-12	Block diagram of cathode-ray oscilloscope and the work of each block	0-5													
	P-1-13	Block diagram of oscilloscope and the work of each block	1-0													
8-2	P-2-1	Meaning of frequency	2-1													
The essential requirements for the transmission of information	P-2-2	Meaning of bandwidth	2-1													
	P-2-3	Aerials for transmission and reception	2-3													
8-3	P-3-1	The use of carrier	1-0													
Amplitude modulation	P-3-2	Wave forms of a carrier amplitude-modulated	1-0													

== plan == Remarks

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course:		Batch:
From:		To:

			Month	9							10							11							12						
			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13		
Topics	Code	Sub-Topics	H.D																												
		by a sinusoid.																													
	8-3-3	Precautions and the procedure for observing amplitude-modulated by a sinusoid.	1.5																												
	8-3-4	Requirement in practice report writing.	1.5																												
	8-3-5	Statement of frequencies comprising the modulated waves of a carrier amplitude-modulated by (a) a sinusoid (b) a complex waveform and (c) pulses.	1.5																												
8-4	8-4-1	Circuit in common use	6.5																												
Amplitude demodulation																															
8-5	8-5-1	The principles of frequency changing	5																												
Frequency changing																															

—— plan —— Remarks

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course:	Batch:	
From:	To:	

			Month	9							10			11		12
			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D													
	P-5-2	Mixer circuits	1-5/25													
	P-5-3	Selection of i-f.	1-5/25													
	P-5-4	Advantages of super-heterodyne over T.R.F. receivers	1-5/25													

Plan
 Remarks

National Youth Service Engineering Institute

Term Run Plan

Approval | Principal | H.O.D

Course: *Electronics* | Batch: *1st*

From: *11/09, 89* | To: *05/12, 89*

17- Engineering principles practice (156.0 Hrs)				9				10				11				12			
				Week				Week				Week				Week			
Topics	Code	Sub-Topics	H/D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17-1 Ohm's Law	17-1-1	Resistors in parallel and series	8/4		✓	✓													
17-2 Resistive materials	17-2-1	Measuring Resistivity	8/4				✓	✓											
17-3 Primary and Secondary cells	17-3-1	Charging methods of primary cell	8/4						✓	✓									
17-4. Magnetism	17-4-2	Force on a current carrying conductor in a field	8/4								✓	✓							
17-5. Ammeter and voltmeter	17-5-1	Shunt and multiplier	12/4										✓	✓	✓	✓	✓	✓	✓

==== Plan ===== Remarks

National Youth Service Engineering Institute

Term Run Plan

Approval | Principal | H.O.D

Course: *Electronics* | Batch: *1st*

From: *11/09, 89* | To: *08/12, 89*

18. Radio & Electronics Practice				9				10				11				12
(156.0 Hrs)				1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D	4.0												
18-1 Block diagrams	18-1-1	Observing signals for a circuits	8/4	F	F											
18-2. The essential requirements for the transmission information	18-2-1	Observing wave forms of each components	8/4				F	F								
18-3 Amplitude modulation	18-3-1	Amplitude modulation	8/4						F	F						
18-4. Demodulation of amplitude modulation	18-4-1	Demodulation of amplitude modulation	8/4								F	F				
18-5 Super-heterodyne receiver	18-5-1	Signal wave forms of each block	4										F	F	F	

== Plan == Remarks

3. 機械工学科

• TIME TABLE

• COURSE RUN SCHEME

• Year Run Plan (1st Year)

• Year Run Plan (2nd Year)

• Year Run Plan (3rd Year)

• Term Run Plan (1st Year)

• Term Run Plan (2nd Year)

• Term Run Plan (3rd Year)

National Youth Service Engineering Institute

Approval Principal H.O.D
Course: Mechanical Engineering Part I, II, III

TIME TABLE

Class: MED '89 Term I, II, III from 11th Sep to 8 Dec, 1989

PERIOD	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8: 00	Subject ENGINEERING DRAWING	Subject WORKSHOP PROCESS & PRACTICE	Subject ENGINEERING SCIENCE	Subject WORKSHOP PROCESS & PRACTICE	Subject ENGINEERING SCIENCE
1	Classroom DRAWING OFFICE	Classroom MECHANICAL WORKSHOP	Classroom LECTURE ROOM 3	Classroom MECHANICAL WORKSHOP	Classroom LECTURE ROOM 3
10: 00	Lecturer Mathiew N. Muraguri	Lecturer Joseph K. Ruto	Lecturer John B. Magiri	Lecturer Joseph K. Ruto	Lecturer John B. Magiri

BREAK TIME

10: 30	Subject ENGINEERING DRAWING	Subject WORKSHOP PROCESS & PRACTICE	Subject MATHEMATICS (WITH NY STUDENTS)	Subject MATERIAL & METALLURGY & PRACTICE	Subject WORKSHOP PROCESS & PRACTICE
2	Classroom DRAWING OFFICE	Classroom MECHANICAL WORKSHOP	Classroom LECTURE ROOM 6	Classroom LECTURE ROOM M02	Classroom MECHANICAL WORKSHOP
12: 30	Lecturer Mathiew N. Muraguri	Lecturer Joseph K. Ruto	Lecturer Milan N. Mirembo	Lecturer Mathiew N. Muraguri	Lecturer Joseph K. Ruto

LUNCH BREAK

2: 00	Subject ELECTRICAL ENGINEERING (SERVICE LECTURE)	Subject WORKSHOP PROCESS & PRACTICE	Subject METROLOGY & MEASURING	Subject GENERAL STUDIES	Subject MATHEMATICS (WITH NY STUDENTS)
3 & 4	Classroom ELECTRICAL WORKSHOP	Classroom MECHANICAL WORKSHOP	Classroom MEASURING ROOM	Classroom LECTURE ROOM 3	Classroom LECTURE ROOM 6
4: 30	Lecturer STUDENT TEACHER from KTIC	Lecturer Joseph K. Ruto	Lecturer Jacob D.O. Mung'oma	Lecturer Ann W. Mwarua	Lecturer Milan N. Mirembo

National Youth Service Engineering Institute

Approval Principal H.O.D

MECHANICAL WORKSHOP TIME TABLE

Course: Mechanical Engineering

Part I, II, III

Class: MED '89 Term I, II, III from 11th Sep to 8 Dec, 1989

PERIOD	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8: 00	Subject	Subject WORKSHOP PROCESS & PRACTICE	Subject	Subject WORKSHOP PROCESS & PRACTICE	Subject
1	Class	Class MECHANICAL PART 1	Class	Class MECHANICAL PART 1	Class
10: 00	Lecturer	Lecturer Joseph K. Ruto	Lecturer	Lecturer Joseph K. Ruto	Lecturer

BREAK TIME

10: 30	Subject	Subject WORKSHOP PROCESS & PRACTICE	Subject	Subject DRAWING, MATERIAL & PROCESS (SERVICE)	Subject WORKSHOP PROCESS & PRACTICE
2	Class	Class MECHANICAL PART 1	Class	Class ELECTRONICS PART 1	Class MECHANICAL PART 1
12: 30	Lecturer	Lecturer Joseph K. Ruto	Lecturer	Lecturer Jacob D.O. Mung'oma	Lecturer Joseph K. Ruto

LUNCH BREAK

2: 00	Subject DRAWING, MATERIAL & PROCESS (SERVICE LECTURE)	Subject WORKSHOP PROCESS & PRACTICE	Subject	Subject MECHANICAL ENGINEERING PRACTICE (SERVICE LECTURE)	Subject
3 & 4	Class ELECTRICAL PART 1	Class MECHANICAL PART 1	Class	Class MOTOR VEHICLE PART 1	Class
4: 30	Lecturer Jacob D.O. Mung'oma	Lecturer Joseph K. Ruto	Lecturer	Lecturer Jacob D.O. Mung'oma	Lecturer

National Youth Service Engineering Institute				Approval	Principal:	H.O.D.:																															
COURSE RUN SCHEME				Course: Mechanical Engineering Dept.		Class: ME089																															
				from September, 1989 to April, 1992																																	
Course Objective: † To get Full Technicians' Certificate of Mechanical Engineering. ‡ To master both of the basic knowledge and the advanced technology as a Mechanical Engineer.																																					
YEAR	CODE	S U B J E C T	HOURS	1989				1990							1991																						
				9	10	11	12	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
1989 & 1990	1021/100	General Studies	52	-----	-----																																
	1021/104	Mathematics	152	-----	-----	-----																															
	1021/103	Engineering Science	156	-----	-----	-----																															
	1021/102	Engineering Drawing	152	-----	-----	-----																															
	1021/101	Electrical Engineering	98	-----	-----	-----																															
	1021/102	Materials & Metallurgy	92	-----	-----	-----																															
	1021/101	Meteorology & Measuring	98	-----	-----	-----																															
	1021/101	Workshop Process & Practice	370	-----	-----	-----																															
	1021/105	Numerical Control Technology	35																																		
First year Total Hours			1205	TERM 1				TERM 2				TERM 3																									
1990 & 1991	1021/200	General Studies	78												-----	-----	-----																				
	1021/203	Mathematics	156												-----	-----	-----																				
	1021/202	Engineering Science	156												-----	-----	-----																				
	1021/204	Engineering Drawing	156												-----	-----	-----																				
	1021/201	Electrical Engineering	78												-----	-----	-----																				
	1021/204	Materials & Metallurgy	78												-----	-----	-----																				
	1021/201	Meteorology & Measuring	78												-----	-----	-----																				
	1021/201	Workshop Technology	156												-----	-----	-----																				
	1021/20X	Elective Subject	390												-----	-----	-----																				
Second year Total Hours			1826													TERM 1				TERM 2				TERM 3													
1991 & 1992	1021/300	General Studies	52																						-----	-----											
	1021/302	Mathematics	104																						-----	-----											
	1021/303	Project	104																						-----	-----											
	1021/301	Industrial Organisation & management Studies	156																						-----	-----											
	1021/304	Numerical Control Technology	104																						-----	-----											
	1021/30X	Elective Subject	260																						-----	-----											
Third Year Total Hours			780													TERM 1				TERM 2																	
Mechanical Engineering Department : Course Total Hours			3311	Remark: Each term is made up of 13 weeks.																																	

National Youth Service Engineering Institute			Approval	Principal:	I.Q.D.:																																					
Year Run Plan (1st year)			Course: Mechanical Engineering Dept.		Class: IED'89																																					
			from September, 1989 to July, 1990																																							
		Year	1989												1990																											
		Month	9			10			11			12			1			2			3			4			5			6			7									
Subject	Code	Topics	HNW	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
General Studies	100 - 01	Grammar	14	*****							*****																															
	100 - 02	Composition	14								*****							*****																								
	100 - 03	Conversation	10								*****							*****																								
	100 - 04	Reading & writing	14								*****							*****																								
			52																																							
Mathematics	104 - 01	Revision of basic arithmetic	14	*****																																						
	104 - 02	Indices & standard form calculations	6								***																															
	104 - 03	Trigonometry	16								*****																															
	104 - 04	Basic vectors	16								*****																															
	104 - 05	An introduction to algebra	8								***																															
	104 - 06	Simple equations	10								*****																															
	104 - 07	Simultaneous equations	10								*****																															
	104 - 08	Geometry	12								*****																															
	104 - 09	Mensuration	12								*****																															
	104 - 10	Evaluation & transposition of formula	26								*****							*****																								
	104 - 11	Proportionality & straight line graphs	26								*****							*****																								
			152																																							
Engineering Science	103 - 01	SI units	4	**																																						
	103 - 02	Units for measuring	4	**																																						
	103 - 03	Measuring temperature	6	***																																						
	103 - 04	Forces	12	*****																																						
	103 - 05	Turning forces	12	*****																																						
	103 - 06	Forces & pressure	14	*****																																						
	103 - 07	Work, energy & power	14	*****																																						
	103 - 08	Heat transfer	10	*****																																						
	103 - 09	The effect of heat on solids, liquids & gases	16	*****																																						
	103 - 10	Energy conversion	12	*****																																						
	103 - 11	Load, stress & strain	14	*****																																						

			Month	9			10				11				12	
			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H\N\O													
Forces		Motion & momentum	8				=	=	=	=						
		Forces in action	8							=	=	=				
		Turning forces	8								=	=	=			
		Force & pressure	8									=	=	=		
		Electromagnetic force	2											=	=	=
				52												
Engineering drawing Drawing instruments		General communication	2	=												
		Drawing papers, masking tape, clips	2	=												
		Drawing pencils, erasers & brushes	2		=											
		Drawing board, tee square & set squares	2		=											
		Protractors, rules, compasses & dividers	2			=										
		Drawing templates	2			=										
		Drawing machine	2				=									
Symbols & lettering		Types of lines & their applications	4				=	=								
		Conventions & symbols	4						=							
		Lettering	8							=	=					
Orthographic projection		Terms used in orthographic projection	4									=				
		First & third angle projection	4										=			
Dimensioning & scales		Types of dimensions	2											=		
		Rules for dimensioning	2											=		
		Methods of dimensioning	4												=	
		Recommended scales	2													=
		Examples of scale drawing	4													=
				52												
Electrical engineering Electric cells		Instructions: marking an electric cell	2	=												
		Leclanche cells	2		=											
Conductors & insulators		Testing conductors & insulators	2			=										
		Instructions: conductors & insulators	2				=									
Electric terms		Electric current	1					=								
		Voltage	1					=								
		Electric power	1						=							
		Electric resistance	2							=						

National Youth Service Engineering Institute				Approval		Principal:		H.O.D.:										
Term Run Plan (1st term)				Course: Mechanical Engineering Dept.				Class: MED'89										
				from 11th September to 7th December, 1989														
				9			10				11			12				
				Week														
				1			2				3			4				
				5			6				7			8				
				9			10				11			12				
				13														
Topics	Code	Sub-Topics	H\D															
		Frequency	1															
Magnets		Magnetic effect of an electric current	1															
		The field around a coil	1															
		Using electromagnetism	1															
		Instructions: using electromagnets	2															
Home electric appliance		Electric appliance in the modern house	1															
		Electric lights	1															
		Electric heater & electric iron box	1															
		Electric cooker & electric oven	1															
		Washing machine & vacuum cleaner	1															
		Refrigerator	1															
		Air conditioner	1															
			26															
Material & metallurgy Metallic & non-metallic		Classification of workshop materials	2															
		Introduction of ferrous metals	2															
		Introduction of non-ferrous metals	2															
		Structure & constitutional diagram	2															
		Introduction of non-metallic materials	2															
Basis of materials		Physical properties of materials	4															
		Chemical properties of materials	4															
Mechanical properties of materials		Loads	2															
		Stresses	2															
		Strains	2															
		Stress-strain diagram	2															
			26															
Metrology & measuring Basis of measuring		Causes of measurement errors	1															
		Sensitivity & accuracy of measuring	1															
		General attention of measurement	1															
		Classification of measuring tools	2															

4. 建設機械工学科

TIME TABLE COURSE RUN SCHEME

Year Run Plan (Prime Movers Technology)	• Year Run Plan (Plant Practice)
Term Run Plan (Prime Movers Technology)	• Term Run Plan (Plant Practice)
Year Run Plan (Prime Movers Technology Practice)	• Year Run Plan (Mechanical Engineering Technology)
Term Run Plan (Prime Movers Technology Practice)	• Term Run Plan (Mechanical Engineering Technology)
Year Run Plan (Plant Technology)	• Year Run Plan (Mechanical Engineering Technology Workshop Practice)
Term Run Plan (Plant Technology)	• Term Run Plan (Mechanical Engineering Technology Workshop Practice)

National Youth Service Engineering Institute		Approval		Principal		H.O.D	
T. J. M. E. T. A. E. L. E.		Course ; CPD		Batch ; 1989		Term ; I	
11/9/1989 ~ 2/12/1989		Class ;					
		(Mon)	(Tue)	(Wed)	(Thu)	(Fri)	
8:00	Subject	CP. Tech.	Mathematics	G. Studies	E. Science	CP. Tech.	
1st	Lecturer	Mr. K. Wairia	Mr. M.M. Nyota	Mrs. A. Mwaura	Mr. J.B. Magiri	Mr. K. Wairia	
10:00	Lecture RM	CM/01	CM/01	LR 6 ab.	CM/01	CM/01	
10:30	Subject	PM. Tech.	Mathematics	ME. Tech.	E. Science	PM. Tech.	
2nd	Lecturer	Mr. P. Ikua	Mr. M.M. Nyota	Mr. K. Wairia	Mr. J.B. Magiri	Mr. P. Ikua	
12:30	Lecture RM	CM/01	CM/01	CM/01	CM/01	CM/01	
Lunch Break							
14:00	Subject	W/S.P. PM. Tech.	W/S.P. ME. Tech	W/S.P. CP. Tech.	Drawing	Drawing	
3rd	Lecturer	Mr. P. Ikua	Mr. K. Wairia	Mr. K. Wairia	Mr. P. Ikua	Mr. P. Ikua	
15:00	Lecture RM	W/Shop	W/Shop	W/Shop	D. Room	D. Room	
15:00	Subject	W/S.P. PM. Tech.	W/S.P. ME. Tech.	W/S.P. CP. Tech.	W/S.P. PM. Tech.	Drawing	
4th	Lecturer	Mr. P. Ikua	Mr. K. Wairia	Mr. K. Wairia	Mr. P. Ikua	Mr. P. Ikua	
16:30	Lecture RM	W/Shop	W/Shop	W/Shop	W/Shop	D. Room	

Remarks:

CP. Tech. --- Construction Plant Technology E. Science --- Engineering Science
 PM. Tech. --- Prime Movers Technology G. Studies --- General Studies
 ME. Tech. --- Mechanical Engineering Technology
 W/S.P. --- Workshop Practice

National Youth Service Engineering Institute

Approval _____ Principal _____ H.O.D. _____

COURSE RUN SCHEME

Course; CPD Batch; 1989

From: SEP 1989 To: DEC 1992

YEAR	CODE	SUBJECT	HOURS	1989				1990				1991				1992											
				9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8
89/90	102	PLANT TECHNOLOGY	150																								
	101	PRIME MOVERS TECHNOLOGY	150																								
	103	MECHANICAL ENGINEERING TECHNOLOGY	20																								
	104	ENGINEERING DRAWING	120																								
	106	MATHEMATICS	140																								
	107	WORKSHOP PRACTICE	365																								
	105	ENGINEERING SCIENCE	155																								
	108	GENERAL STUDIES	78																								
	109	FIELD ATTACHMENT	500																								
		First Year Total Hours																									
90/91	202	PLANT TECHNOLOGY	150																								
	201	PRIME MOVERS TECHNOLOGY	150																								
	203	ENGINEERING DRAWING	140																								
	204	MATHEMATICS	140																								
	206	WORKSHOP PRACTICE	440																								
	204	ENGINEERING SCIENCE	140																								
	207	GENERAL STUDIES	78																								
	208	FIELD ATTACHMENT	500																								
		Second Year Total Hours																									
91/92	308	WORKSHOP ADMINISTRATION	156																								
	301	PRINCIPLES OF MANAGEMENT	156																								
	302	COMMERCIAL PRACTICE AND OFFICE PROCEDURE	104																								
	305	THE LAW RELATED TO THE TRADE	104																								
	306	PARTS MARKETING AND SALES	104																								
	304	PROJECT	170																								
	307	GENERAL STUDIES	50																								
		Third Year Total Hours																									
		Course Total Hours																									

Course Objective:

National Youth Service Engineering Institute

Term Run Plan

Approval:	Principal	H.O.D
Course:	Batch:	
From:	To:	

101. PRIME MOVERS TECHNOLOGY			Month	9							10							11							12						
			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13		
Topics	Code	Sub-Topics	H.O.D	11/9, 15/9, 18/9, 22/9, 25/9, 27/9, 2/10, 6/10, 9/10, 13/10																											
1. GENERAL	1.	Introduction to PM. Tech.	1.0																												
	2.	Classification of IC Engine	1.0																												
2. SI. ENGINE 2-1. GENERAL	1.	Names of main components and Working Principles	8.0																												
	2.	Structure	4.0																												
	3.	Combustion	4.0																												
2-2 STRUCTURE AND FUNCTION OF ENGINE PROPER	1.	General	1.0																												
		a) Names of main parts																													
		b) Structure and function out-line																													
	2.	Cylinder head (2 cycle 4 cycle)	1.0																												
	a) Structure and function																														

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course:	Batch:	
From:	To:	

Topics	Corie	Sub-Topics	H.O.D	Month													
				9	10					11			12				
				Week	1	2	3	4	5	6	7	8	9	10	11	12	13
2-2 STRUCTURE AND FUNCTION OF ENGINE PROPER	6.	Crack-shaft and Journal Bearings	1.0														
		a) Structure and function															
		b) Crank throwers															
	7.	Flywheel and Ring-gear	0.5														
		a) Structure and function															
	8.	Valve system (2 cycle 4 cycle)	4.0														
		a) Structure and fuction															
		b) Types of valve systems and features															
		c) Valve timing															

27/10, 28/10, 29/10, 30/10, 31/10, 1/11, 2/11, 3/11, 4/11, 5/11, 6/11, 7/11, 8/11, 9/11, 10/11, 11/11, 12/11, 13/11, 14/11, 15/11, 16/11, 17/11, 18/11, 19/11, 20/11, 21/11, 22/11, 23/11, 24/11, 25/11, 26/11, 27/11, 28/11, 29/11, 30/11, 31/11

National Youth Service Engineering Institute				Approval	Principal	H.O.D										
<h1>Term Run Plan</h1>				Course: CPD		Batch: 1989										
				From: SEP. 1989		To: DEC 1989										
PRIME MOVERS TECHNOLOGY			Month	9		10	11	12								
WORKSHOP PRACTICE			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H\ D													
1. INTRODUCTION	1	Objective Schedule	0.5													
2. IC ENGINE		e.t.c														
2-1 DIFFERENTIATION AMONG IC ENGINE (MAKE COMPARISON) BETWEEN DIFFERENT TYPES OF ENGINE)	1	Operation made	1.0													
	2	Combustion made														
	3	Ignition made														
	4	Fuel														
	5	Colling Method														
	6	Valve System														
	7	Cylinder Arrangement														
2-2 NAMES, STRUCTURE AND FUNCTION OF ENGINE PROPER AND AUXILIARY SYSTEM	1	Engine Proper	1.0													
		Cylinder head, cyl.Block Crank shaft, Con. Rod.														
		Piston, Piston-Ring Fly wheel, Ring gear														
	2	Auxiliary System	1.0													
	Fuel, Lubrication, Cooling Ignition, Charging															
	Starting															
(UTILIZE CUT MODEL AND DISMANTLED PARTS)																

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course:	Batch:	
From:	To:	

			Month	9					10				11			12
			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H.O.D													
3-1 DISASSEMBLE AND ASSEMBLY	4	Fuel System														
		a) Fuel pump														
		b) Fuel filter	(4c)													
		c) Carburettor														
	5	Starting System														
		a) Starting Switch														
		b) Starting Motor	(3c)													
		c) Wiring														
3-2 INSPECTION AND MAINTENANCE	6	Charging System	(4c)													
		a) Battery														
		b) Regulator														
		c) Alternator														
		d) DC. Generator														
		e) Wiring														
3-2 INSPECTION AND MAINTENANCE	1	Engine Proper	(10c)													
	1)	Cylinder Head														
		a) Straightnes														
		b) Crank and damage														
	2)	Valve System														
		a) Straightnes														
		b) Wear and damage														
		c) Valve-seat														
		d) Valve-spring														
		e) Tappet, Rocker arm														
	f) Valve refacing															
	g) Valve seat cutting															
	h) Valve setting															

National Youth Service Engineering Institute													Approval	Principal	H.O.D								
Term Run Plan													Course: <u> </u>		Batch: <u> </u>								
													From: <u> </u>		To: <u> </u>								
			Month	9					10					11					12				
			Week	1	2	3	4	5	6	7	8	9	10	11	12	13							
Topics	Code	Sub-Topics	H.O.D																				
3-2 INSPECTION AND MAINTENANCE	3)	Cylinder, Cyl. Block																					
		a) Straightness																					
		b) Wear																					
		c) Damage																					
		4)	C Crank shaft																				
			a) Straightness, Torsion																				
			b) Wear																				
			c) Damage																				
		5)	Journal Bearing																				
			a) Wear and damage																				
			b) Clearance and play																				
		6)	Connecting-rod Bush and Bearing																				
			a) Straightness, Torsion																				
			b) Wear and Damage																				
			c) Clearance																				
		7)	Piston, Piston-pin and Piston ring																				
			a) Wear and damage																				
			b) Clearance and gap																				
	8)	Camshaft and Bearing																					
		a) Straightness																					
		b) Wear and Damage																					
		c) Clearance and play																					
	9)	Measurement of Compression																					

National Youth Service Engineering Institute

Approval	Principal	H.O.D
Course: CPTI		Batch: CPD 89
From: Sept. 1989		To: July 1990

Year Run Plan

PLANT TECHNOLOGY	Subject PL. Tech, Code	Topics	H.W	Year											
				1989						1990					
				9	10	11	12	1	2	3	4	5	6	7	8
	.102			1	2	3	4	5	6	7	8	9	10	11	12
1st Term	1	INTRODUCTION TO PLANT TECHNOLOGY	1												
	2	APPRECIATION OF CONSTRUCTION PLANT	2												
	3	POWER TRAIN	18												
	4	AXLE AND SUSPENSION	6												
	5	STEERING SYSTEM (WHEEL AND CRAWLER TYPE)	12												
	6	WHEEL AND TYPE	4												
	7	BRAKES (WHEEL AND CRAWLER TYPE)	6												
2nd Term	8	HYDRAULIC SYSTEM AND WORKING EQUIPMENTS	18												
	9	FRAME, BODY AND UNDER CAR-BRACE	14												
	10	STARTING SYSTEM	4												
	11	ELECTRICAL SYSTEM	4												
	12	LUBRICANTS	4												
	13	AIR COMPRESSOR AND PNEUMATIC TOOLS	10												
THIRD TERM	14	HOIST AND CRANE	18												

PLAN: REMARK:

National Youth Service Engineering Institute

Term Run Plan

Approval: _____	Principal: _____	H.O.D: _____
Course: _____		Batch: _____
From: _____	To: _____	

				9							10							11							12																																																																					
				1							2							3							4							5							6							7							8							9							10							11							12							13						
Topics	Code	Sub-Topics	H.O.D																																																																																											
3/ Axle and suspension (Structure and Function)	102/3/12	Types of axles	2																																																																																											
	102/3/13	Types of suspension	4																																																																																											
4/ Steering system (wheel and crawler type)	102/4/14	Ackerman principles	1																																																																																											
	102/4/15	Types of steering boxes	1																																																																																											
	102/4/16	Steering linkages	2																																																																																											
	102/4/17	Power steering	4																																																																																											
	102/4/18	Steering clutches	2																																																																																											
	102/4/19	Hydraulic steering circuit diagrams	2																																																																																											
5/ Wheel and tyres	102/5/20	Wheel rims	1																																																																																											
	102/5/21	Tyre specification and ballast	3																																																																																											
	102/5/22																																																																																													

National Youth Service Engineering Institute

Term Run Plan

Approval: Principal | H.O.D

Course: | Batch:

From: | To:

		Month														
		Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H' D													
- do -	2/4/6	Workshop report														
		writing														
5/ Axle and suspension	2/5/1	Dissassembly														
	2/5/2	Inspection of parts														
	2/5/3	Assembly														
	2/5/4	Workshop report														
		writing														
6/ Steering system	2/6/1	Dissassembly														
	2/6/2	Inspection of parts														
	2/6/3	Assembly														
	2/6/4	Workshop report														
		writing.														
7/ Wheel and tyre	2/7/1	Tyre removal														
	2/7/2	Puncture repair														
	2/7/3	Tyre Assembly														
	2/7/4	Wheel balancing														
	2/7/5	Workshop report														
		writing														

National Youth Service Engineering Institute

Year Run Plan

Approval	Principal	H. O. D	
Course: CPD		Batch: 1989	
From: 11/9/1989		To: 12/12/1990	

<i>ME. TECH.</i>		Year	1989								1990																
		Month	9	10	11	12	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	
Subject	Code	Topics	H.W	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
MECHANICAL ENGINEERING TECHNOLOGY CODE - 103	1.	GENERAL	4 1/2	✓																							
	2.	CARE AND USE OF COMMON HAND TOOLS AND EQUIPMENT	6 1/2		✓	✓																					
	3.	CARE AND USE OF MEASURING TOOLS AND INSTRUMENTS	5 1/2			✓	✓																				
	4.	SI UNITS	4 1/2				✓																				
	5.	MACHINE ELEMENTS	1 1/2						✓																		
	6.	BASIC METAL WORK	8 1/2							✓	✓	✓	✓														
	7.	PROPERTY AND STRENGTH OF MATERIALS	7 1/2																								
	8.	WELDING	8 1/2																								
	9.	MACHINING	7 1/2																								

National Youth Service Engineering Institute

Term Run Plan

Approval | Principal | H.O.D

Course: CPD | Batch: 1989

From: 11/9/89 | To: 8/12/89

SUBJECT: MECHANICAL ENGINEERING			Month	9					10					11					12
TECHNOLOGY			Week	1	2	3	4	5	6	7	8	9	10	11	12	13			
Topics	Code	Sub-Topics	H.O.D	13/9	20/9	27/9	4/10	11/10	18/10	25/10	1/11	8/11	15/11	22/11	29/11	6/12			
1. GENERAL	1.	Introduction to Mechanical Eng. Tech	0.5	H															
	2.	General Workshop regulation and precautions	2.5	H	A														
	1.	Types and Names of Tools, equipments and purpose of use.	1.0				H												
	2.	Care, use and precautions					H	A	H	A									
	a)	Hand tools	1.0																
	b)	Electric tools	1.0																
	c)	Pneumatic tools	1.5																
	d)	Workshop equipment	1.5																
3. CARE AND USE OF MEASURING TOOLS AND INSTRUMENT	1.	Methods of measuring	1.0								H	A							
	2.	Types, names and purpose of use of measuring tools and Instrument	1.0																
	3.	Care and use	1.0																
	a)	Steel ruler, square, level, surface plate "v" Block																	
		F/Joint caliper, Straight ruler.																	

PLAN _____

REMARK _____

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course:	Batch:	
From:	To:	

			Month	11 → 12 →								
			Week	8	9	10	11	12	13			
Topics	Code	Sub-Topics	H.O.D	1/11	8/11	15/11	22/11	29/11	6/12	7/12		
3. CARE AND USE OF MEASURING TOOLS AND INSTRUMENT	3.	Care and use	3.0	☑								
		b) Vernier caliper										
		Micrometer Dial gauge										
		Screw pitch gauge										
		Thermometer, Tachometer										
		Stop watch, Balance										
4. SI. UNITS	1.	Symbols, Abbreviation and Greek letter	1.0		☑							
	2.	ISO, BS, KES (MKS, FPS)	1.0			☑						
	3.	Weight and measures conversion tables	1.0				☑					
	4.	Screw thread tables	1.0					☑				
5. MACHINE ELEMENTS	1.	Types, Names and purpose of use of machine elements	1.0									
6. BASIC METAL WORK	1.	Working method and precautions.										
		a) Cutting	0.75									
		b) Bending	0.75									
		c) Sharpening tools	0.75									
		d) Filing	0.75									

National Youth Service Engineering Institute

Term Run Plan

Approval:	Principal	H.O.D
Course:	Batch:	
From:	To:	

	Month											
	12	—————>	1									
	13		1	2	3	4	5					
Topics	Code	Sub-Topics	H.D	6/12	7/12	10/1	17/1	24/1	31/1	7/2		
6. BASIC METAL WORK	1.	Working method and precautions										
		e) Grinding	0.75									
		f) Screw threading and broken srew removing	0.75									
		g) Soldering/Rivet fixing	0.75									
7. PROPERTY AND STRENGTH OF MATERIALS	1.	Composition of metal	1.0									
	2.	Property of materials	3.0									
		a) Iron and alloy										
		b) Nonferrous metal and alloy										
		c) Nonmetal materials										
	3.	Strength of materials	4.0									
		a) Stress and strain										
		b) Tension										
		c) Distortion										

National Youth Service Engineering Institute

Term Run Plan

Approval	Principal	H.O.D
Course: CPD	Batch: 1989	
From: 11/9/1989		To: 1/12/1989

SUBJECT : MECHANICAL ENGINEERING			Month	9								10				11				12
TECH. WORKSHOP PRACTICE			Week	1	2	3	4	5	6	7	8	9	10	11	12	13				
Topics	Code	Sub-Topics	H.O.D	12/9	19/9	26/9														
1. WORKSHOP REGULATION AND SAFETY PRECAUTIONS	1.	Workshop layout and allocation of equipments including air piping and electric wiring	0.5	<input checked="" type="checkbox"/>																
	2.	Experiments of ignition combustion and fire extinguishing with a) petrol b) Diesel fuel c) Kerosin d) Wood e) Gas	1.0	<input checked="" type="checkbox"/>																
	3.	First aid a) cut b) Burn c) Injuries caused by chemicals.	1.0	<input checked="" type="checkbox"/>																
	2. CARE AND USE OF HAND TOOLS AND EQUIPMENTS	1.	Hand tools			<input checked="" type="checkbox"/>														
		2.	Pneumatic tools				<input checked="" type="checkbox"/>													
		3.	Electric tools	2.5			<input checked="" type="checkbox"/>													
		4.	Jack and lifts and other common workshop equipments	2.5			<input checked="" type="checkbox"/>													

PLAN _____ REMARK _____

5. 自動車工学科

· TIME TABLE

· COURSE RUN SCHEME

· Year Run Plan
(Motor Vehicle Technology)

· Term Run Plan
(Motor Vehicle Technology)

· Year Run Plan
(Workshop Practice)

· Term Run Plan
(Workshop Practice)

· Year Run Plan
(Engineering Drawing and Sketching)

· Term Run Plan
(Engineering Drawing and Sketching)

National Youth Service Engineering Institute

Approval : Principal : H.O.D.
 Course; MVD : Batch; 1989
 From: 1989 : To: 1992

COURSE RUN SCHEME

YEAR	CODE	SUBJECT	HOURS	1989		1990							1991							1992																
				9	10	11	12	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9	10	11	4	5	6	7	8	9	10	11			
89/90	101	Motor Vehicle Technology	286																																	
	102	Motor Vehicle Practice	357.5																																	
	103	Mechanical Engineering Practice	32.5																																	
	104	Electric	26																																	
	105	Engineering Science	156																																	
	106	Mathematics	175.5																																	
	107	Engineering Drawing	156																																	
	108	General Studies	78																																	
First Year Total Hours			1267.5																																	
90/91	201	Motor Vehicle Technology	312																																	
	202	Motor Vehicle Practice	390																																	
	205	Engineering Science	156																																	
	206	Mathematics	175.5																																	
	207	Engineering Drawing	156																																	
	208	General Studies	78																																	
	Second Year Total Hours			1267.5																																
91/92	301	Parts Marketing and Sales	104																																	
	302	Workshop Administration	156																																	
	303	Principles of Management	156																																	
	304	Commercial Practice	52																																	
	305	Office Procedure	52																																	
	306	The law related and Motor Trade	104																																	
	307	Project	169																																	
	308	General Studies	52																																	
Third Year Total Hours			845.0	Course Objective:																																
Course Total Hours			3380																																	

National Youth Service Engineering Institute				Approval Principal		H.O.D											
Term Run Plan				Course: MVD		Year: MUD 89											
				From: SEP. 1989		To: JULY, 1990											
			Month														
Subject: MOTOR VEHICLE TECHNOLOGY			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H\D														
WORKSHOP SAFETY	1	INTRODUCTION TO MOTOR TRADE	2.0	<input type="checkbox"/>													
	2	WORKSHOP REGULATION	2.0	<input type="checkbox"/>													
	3	HANDLING AND STORING INFLAMMABLE MATERIALS	1.0	<input type="checkbox"/>													
	4	SAFETY PRECAUTIONS REGARDING LIFTING EQUIPMENT	1.0	<input type="checkbox"/>													
	5	EMERGENCY TREATMENT	1.0	<input type="checkbox"/>													
	FITTING TOOLS	1	CUTTING TOOLS	2.0	<input type="checkbox"/>	<input type="checkbox"/>											
2		SPANNERS, KEYS ETC	2.0	<input type="checkbox"/>													
MEASURING TOOLS	1	MICROMETERS	2.0	<input type="checkbox"/>	<input type="checkbox"/>												
	2	VERNIER CALLIPERS	2.0	<input type="checkbox"/>													
MATERIALS USED INCONSTRUCTION OF MOTOR VEHICLE	1	FERROUS METALS	1.0	<input type="checkbox"/>	<input type="checkbox"/>												
	2	NONFERROUS METALS															
LAYOUT OF MOTOR VEHICLES	1	LAY OUT OF SALOON VEHICLES	1.0	<input type="checkbox"/>													
	2	LAYOUT OF CVs.	1.0	<input type="checkbox"/>													
	3	ALTERNATIVE LAYOUT FOR CARS.	1.0	<input type="checkbox"/>													

==== Plan ——— Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D										
Term Run Plan				Course:		Year:										
				From:		To:										
				Month		9	10	11	12							
Subject:	Code	Sub-Topics	Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics			H/D													
6. BODY AND CHASSIS	4	The motor cycle	1.0													
	1	Separate Chassis	1													
		and Body Construction														
	2	Unitary Construction	1													
	3	Seat Belts and seat location														
7. THE PETROL ENGINE	1	Elementary Engine	2													
		Build - up														
	2	The Four Stroke Cycle	2													
	3	The Two Stroke Cycle	2													
8. SINGLE AND MULTICYL ENGINES	1	Weight to Power Ratio	1													
	2	Firing Interval	1													
	3	Inertial Loads and Balance	1													
9. CYL ARRANGEMENTS	1	Inline Engine	0.5													
	2	Vee-Engine	0.5													
	2	Opposed Engine	0.5													
	4	Radial Engine	0.5													

==== Plan ——— Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D										
Term Run Plan				Course:		Year:										
				From:		to:										
Month				9			10			11			12			
Subject:				1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D													
10	CRANK THROWS	1. Two Cyl Engine	0.5													
		2. Three Cyl	0.5													
		3. Four Cyl Etc	0.5													
		4. Firing Orders	1													
11	VALVE ARRANGEMENT	1. Side Valve	1													
		2. Over head	1													
12	FUNCTION OF ELECTRICAL COMPONENTS	1. Function of main Circuit	2													
		2. Coil Ignition System	1													
13	FUEL SUPPLY SYSTEMS.	1. Fuel Tank	0.5													
		2. Gravity Feed System Layout	0.5													
		3. Mechanical Pump System Layout	0.5													
		4. Electrical Pump System Layout	0.5													
		5. Simple Carburettor	2													
14	WATER COOLING.	1. Thermo Syphon System	1.5													
		2. Pump Circulation	0.5													

==== Plan ~~-----~~ Remarks

National Youth Service Engineering Institute													Approval	Principal	H.O.D								
Term Run Plan													Course:		Year:								
													From:		To:								
													Month			9	10			11			12
Subject: -----				Week	1	2	3	4	5	6	7	8	9	10	11	12	13						
Topics			Code	Sub-Topics	H\ D																		
15	SINGLE PLATE FRICTION CLUTCH	1.	FUNCTION	0.5																			
		2.	CONSTRUCTION AND OPERATION	1.5																			
		1.	TRACTIVE RESISTANCE AND EFFORT	1.0																			
		2.	REAR AXLE AND GEARBOX RATIO	1																			
		3.	THREE SPEED SLIDING MESH GEARBOX	2.5																			
		4.	CONSTANT MESH G/BOX	2.5																			
		17	UNIVERSAL AND SLIDING JOINTS	1.	FLEXIBLE FABRIC	0.5																	
2.	HOOKES (CROSS TYPE)			0.5																			
3.	LAYRUB JOINT			0.5																			
4.	POTS TYPE			0.5																			
5.	SLINDING JOINT			0.5																			
6.	PROPELLER SHAFT ACTION			1																			
18	TYPES OF REAR AXLE GEARING	1.	STRAIGHT BEVEL	1																			
		2.	SPIRAL BEVEL																				
		3.	HYPOID	1																			
		4.	WORM AND WHEEL	1																			

==== Plan _____ Remarks

National Youth Service Engineering Institute													Approval Principal		H.O.D			
Term Run Plan													Course:		Year:			
													From:		To:			
				Month			9			10			11			12		
Subject:				Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics		H.O.D														
19	METHODS OF SUPPORTING AXLE SHAFTS	5.	CROWN WHEEL AND PINION		1.0													
		6.	DIFFERENTIAL GEARS		3.0													
	1.	SEMI FLOATING		0.5														
	2.	THREE QUARTER FLOATING		0.5														
	3.	FULL FLOATING		0.5														
	20	TRANSMISSION AND REAR SUSPENSION	1.	THRUSTS AND REACTIONS IN REAR AXLE		2												
2.			TORQUE TUBE DRIVE		1.0													
3.			HOTCHKISS DRIVE		1.0													
21	FRONT BEAM AXLE ASSY	1.	CONSTRUCTION		2.0													

==== Plan ——— Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D											
Term Run Plan				Course:		Year:											
				From:		To:											
Month				1			2			3			4				
Subject:				Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H\ D														
22	STEERING GEARS	1. WORM AND SECTOR	1.0	<input type="checkbox"/>													
		2. WORM AND NUT	1.0	<input type="checkbox"/>													
		3. RECIRCULATING BALLS	1.0	<input type="checkbox"/>													
		4. CAM AND PEG	1.0	<input type="checkbox"/>													
		5. WORM AND ROLLER	1.0	<input type="checkbox"/>													
		6. RACK AND PINION	1.0	<input type="checkbox"/>													
23	BRAKING SYSTEMS																
		1. GENERAL OPERATION	4	<input type="checkbox"/>	<input type="checkbox"/>												
24	CHASSIS FRAME	HYDRAULIC MECHANICAL SYSTEMS															
		2. DISC BRAKES	2.0	<input type="checkbox"/>													
		1. CONSTRUCTION OF SIMPLE CHASSIS FRAME	1.0	<input type="checkbox"/>													
		2. PROVISION FOR MOUNTING BODY ETC.															
25	ELETRICAL SYSTEM	1. ELECTRICAL CIRCUIT	1.0	<input type="checkbox"/>													
		2. CURRENT CARRYING CAPACITY OF CABLES	2.0	<input type="checkbox"/>													
		3. LIGHTING CIRCUIT	2.0	<input type="checkbox"/>													
		4. LIGHTING REGS	2.0	<input type="checkbox"/>													

National Youth Service Engineering Institute <h1 style="margin: 0;">Term Run Plan</h1>	Approval	Principal	H.O.D
	Course:		Year:
	From:	To:	

			Month	1				2				3				4			
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Topics	Code	Sub-Topics	H/D																
		SYSTEMS																	
	2	DISC BRAKES	2.0																
	1	CONSTRUCTION OF	1.0																
		SIMPLE CHASSIS FRAME																	
	2	PROVISION FOR MOUNTING	0.5																
		BODY ETC																	
	1	ELECTRICAL CIRCUIT	1.0																
	2	CURRENT CARRYING	2.0																
		CAPACITY OF CABLES																	
	3	LIGHTING CIRCUIT	2.0																
	4	LIGHTING REGS	2.0																
	5	LIGHT	1.0																
	6	AUTO. LAMPS	3.0																
	7	FOCUSING	1.0																
	8	HEAD LAMPS	2.0																
	9	CONNECTORS	2.0																
	10	FUSES	1.0																
	11	LEAD-ACID BATTERY	3.0																
	1	CYLINDER BLOCK AND	2.0																
		CRANKCASE																	

ENGINE CONSTRUCTION

==== Plan _____ Remarks

National Youth Service Engineering Institute													Approval	Principal	H.O.D	
Term Run Plan													Course:		Year:	
													From:		To:	
			Month	1			2			3			4			
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D													
	2	CYL LINERS	1.0													
	3	CYL HEAD AND GASKET	1.0													
	4	PISTONS														
	5	GUDGEON PINS	0.5													
	6	PISTON RINGS	3.0													
	7	CONNECTING ROD	1.0													
	8	CRANKSHAFT	1.0													
	9	CYLINDER NUMBERING	1.0													
	10	CAMSHAFT	1.5													
	11	CRANKSHAFT SEALS	1.5													
	12	OVERHEAD	2.5													
		CAMSHAFT														
	13	CAMSHAFT DRIVES	2.0													
	14	ROCKER ARM	1.0													
		ARRANGEMENT														
7	1	FOUR STROKE	2.0													
		CYCLE														
	2	TYPES OF COMBUSTION	3.0													
		OF CI AND SI ENGINES														

National Youth Service Engineering Institute											Approval Principal		H.O.D					
Term Run Plan											Course:		Year:					
											From:		To:					
			Month															
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13		
Topics	Code	Sub-Topics	H \ D															
29	FUEL SUPPLY AND CARBURATION	1	MECHANICAL FUEL PUMP	1.0											□			
		2	ELECTRICAL PUMP	1.0											□			
		3	FUNCTIONS OF CARBURETTOR	2.0												□		
		4	COMPENSATING DEVICES	2.0												□		
		5	MIXTURE ENRICHMENT DEVICES	2.0												□		
		6	COLD START DEVICES	2.0													□	
		7	IDLING SYSTEMS	2.0													□	
		8	ACCELERATION DEVICES															
		9	CONSTANT VACCUM CARBURETTOR	2.5													□	
		10	CI FUEL SYSTEM LAYOUT	2.0													□	
		11	CI FUEL FILTER	1.0													□	
		30	LUBRICATION	12	PLUNGER TYPE PUMP	2.0											□	
1	LUBRICANTS			1.0	□													
2	SPLASH FEED SYSTEM			2.0	□													
		3	FORCE FEED SYSTEM	2.0	□	□												

==== Plan ——— Remarks

National Youth Service Engineering Institute				Approval Principal		H.O.D										
Term Run Plan				Course:		Year:										
				From:		To:										
Subject:			Month	4		5		6		7						
Topics			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Code	Sub-Topics	H\ D														
4	Dry sump system	1.0		<input type="checkbox"/>												
5	Gear Type Oil pump	1.0		<input type="checkbox"/>												
6	Eccentric rotor pump	1.0		<input type="checkbox"/>												
7	Eccentric vane pump	1.0		<input type="checkbox"/>												
8	Full flow filter	1.0		<input type="checkbox"/>												
9	By-Pass filter system	1.0		<input type="checkbox"/>												
10	Pressure Relief	0.5		<input type="checkbox"/>												
	Valves															
11	Pressure Warning	2.0			<input type="checkbox"/>											
	Devices															
12	Properties of	2.0			<input type="checkbox"/>											
	Lubricant															
13	Sae Classification	1.0			<input type="checkbox"/>											
14	Causes and Effects	2.0			<input type="checkbox"/>											
	OF HIGH OIL CONSUMPTION															
31	COOLING SYSTEMS															
1	Air cooling	3.0			<input type="checkbox"/>	<input type="checkbox"/>										
2	Water pump	1.5				<input type="checkbox"/>										
3	Thermostats	3.0					<input type="checkbox"/>									
4	Pressurised Rad Cap	1.0						<input type="checkbox"/>								
32	COIL IGNITION															
1	Operation of Coil	1.0						<input type="checkbox"/>								
2	Condenser	1.0						<input type="checkbox"/>								

==== -Plan _____ Remarks

National Youth Service Engineering Institute				Approval		Principal		H.O.D										
Term Run Plan				Course:				Year:										
				From:				To:										
				Month				7										
Subject:				4	5			6			7							
				Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H\,D															
33	BATTERIES	3	Advance Mechanism	3.0														
		4	IGNITION TIMING	1.0														
		5	Spark Plugs	2.0														
		1	Lead Acid	1.0														
		2	Nickel-Iron Alkaline	2.0														
		3	Cell Voltage, Testing	3.0														
			Care and Maintenance															
		4	Installation and	2.0														
			Storage															
34	STARTIOR MOTOR	1	OPERATION AND	2.0														
			Contruction															
35	METALS	2	Inertia Drives	1.0														
		1	Properties and uses	2.0														
			of common Irons and															
36	CUTTING TOOLS		Steels															
		2	Indetification of	2.0														
			Irons and Steels by															
			Working Methods															
		1	Bench Vices, Care and	2.0														
	use																	
	2	Sharpening of Tools	2.0															

==== Plan ===== Remarks

National Youth Service Engineering Institute											Approval	Principal	H.O.D				
Term Run Plan											Course:		Year:				
											From:		To:				
			Month	4			5			6			7				
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H/D														
37	SOLDERS	3	Cutting Action and Tool Angles For Bench Tools	2.0								□					
		1	Composition of Solders	0.5									□				
		2	Fluxes	0.5										□			
		3	Methods of Soldering	1.0										□			
38	SCREW THREADS	1	Types of Screw Thread and their use	2.0									□	□			
		2	Use of Screw Thread Tables	2.0										□			

==== Plan ——— Remarks

National Youth Service Engineering Institute

Year Run Plan

Approval	Principal	H.O.D
Course:		Batch:
From:		To:

Subject	Code	Topics	H.W	Year											
				1989								1990			
				9	10	11	12	1	2	3	4	5	6	7	8
	26	DISMANTLING VARIABLE AND CONSTANT CHORE CARBURETTORS	18												
	27	DISMANTLING AND INSPECTION OF FUEL PUMPS	10												
	28	TESTING OF A COMPLETE IGNITION --SYSTEM	12.5												
	29	OVERHAULING INERTIA ENGAGEMENT STARTERS	15												
	30	TUBE REPAIR	2.5												

Signature _____
Date _____
studs

National Youth Service Engineering Institute				Approval Principal H.O.D													
Term Run Plan				Course: MVD 89 Year: 1989													
				From: SEPTEMBER To: DECEMBER													
				9			10			11			12				
Subject: WORKSHOP PRACTICE				Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H \ D														
WORKSHOP SAFETY	1	Using fire extiqui-															
		shers	2.0	<input type="checkbox"/>													
	2	Using axlestands	1.0	<input type="checkbox"/>													
	3	First Aid	2.0	<input type="checkbox"/>													
USE OF FITTING TOOLS	4	Cleaning W/Shop FLOOR	2.0	<input type="checkbox"/>													
	1	Correct use of spanners	2.5	<input type="checkbox"/>													
WORKSHOP TEST OF IRONS AND STEELS	2	Selection of spanners	0.5	<input type="checkbox"/>													
	1	Indentification of various metal by their working properties	4.0	<input type="checkbox"/>													
CUTTING TOOLS	1	Marking out jobs	2.0	<input type="checkbox"/>													
	2	Sawing	1.0	<input type="checkbox"/>													
	3	Drilling	2.0	<input type="checkbox"/>													
	4	Filing	4.0	<input type="checkbox"/>	<input type="checkbox"/>												
	5	Making threads	4.0	<input type="checkbox"/>													
	6	Removing broken studs	1.0	<input type="checkbox"/>													

National Youth Service Engineering Institute				Approval Principal		H.O.D											
Term Run Plan				Course: MVD 1989				Year: 1989									
				From: SEP.				To: DEC.									
				9			10			11			12				
Subject:	Month	Week	H \ D	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H \ D														
SOLDERING	7	Reclaming damages															
		threads	2.0			<input type="checkbox"/>											
	8	Sharpening tools	2.0			<input type="checkbox"/>											
	1	Using snips on sheet															
		metal	2.0				<input type="checkbox"/>										
	2	Soldering double lap															
		joints e.t.c.	4.0				<input type="checkbox"/>										
	3	Soldering nipples &															
		copper pipes	3.0					<input type="checkbox"/>									
	4	Making insulating &															
	finishing soldered																
	joint in astranded																
	cable	2.0						<input type="checkbox"/>									
WORKSHOP MEASUREMENT	1	Use of rules	1.0						<input type="checkbox"/>								
	2	Use of calliper	3.0						<input type="checkbox"/>								
		including vernier															
	calliper																
	3	Use of micrometers	3.0						<input type="checkbox"/>								
INSPECTION OF LAYOUT OF CARS AND CVs	1	Conventional	2.0						<input type="checkbox"/>								
	2	Alternative drive	2.0						<input type="checkbox"/>								
		arrangement															

National Youth Service Engineering Institute

Approval	Principal	H.O.D
Course: MVD 89		Year: 1989
From: SEPT.	To: DECEMBER	

Term Run Plan

			Month	9					10					11					12				
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13							
Topics	Code	Sub-Topics	H\ D																				
DISMANTLING ENGINE	3	Layout of CVs. buses																					
		trucks e.t.c.	2.5																				
	1	Correct procedure of dismantling.																					
		a) Four stroke engine																					
			6.0																				
		b) Two stroke engine	4.0																				
	2	Noting part names & sequence of operation	2.0																				
	3	Alternative CYL and cranilthrow arrangement	2.0																				
	INSPECTION OF VALVE DRIVE MECHANISM	1	Overhead valve	2.5																			
		2	Side valve	2.5																			
3		Overhead camshaft	2.5																				
4		Twin cam drive	2.5																				
5		Adjusting valve clearance	2.5																				
6		Valve lift measurement	2.5																				

National Youth Service Engineering Institute											Approval Principal		H.O.D			
Term Run Plan											Course: MVD 89		Year: 1989			
											From: SEPT.		To: DECEMBER			
Subject:				Month	9					10			11		12	
Week.				1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H\O													
INSPECTION OF MAIN ELECTRICAL COMPONENTS	1	Wiring connections	2.5													
		ignition, lights etc														
	2	Dismantling and														
		assembling distribu-														
		tor	5.0													
INSPECTION OF FUEL SUPPLY SYSTEM	3	Cleaning-adjusting														
		spark plugs	2.5													
	4	Adjusting CB points	2.5													
	DISMANTLING AND ASSY OF COOLING SYSTEM	1	Layout and component													
		parts	2.5													
DISMANTLING AND ASSY OF COOLING SYSTEM	2	Simple carburettor	2.5													
	1	Radiator	2.5													
	2	Pump	5.0													
DISMANTLING SIMPLE CLUTCH	3	Thermostat	2.5													
	4	Connections	0.5													
	1	Dismantle clutch	2.0													
		from vehicle														
DISMANTLING SIMPLE CLUTCH	2	Inspection for wear	2.5													
	3	Adjustment	2.5													
	4	Bleeding hydraulic														
		systems	1.0													

===== Plan ————— Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D									
Term Run Plan				Course:		Year:									
				From:		To:									
				1		2		3		4					
Subject:	Month	Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D												
DISMANTLING GEARBOX	1	Correct procedure of dismantling G/box	5.0	<input type="checkbox"/>											
	2	Method of engagement	1.0	<input type="checkbox"/>											
	3	Determination of gear ratios	2.0	<input type="checkbox"/>											
	4	Provision for adjustment	1.0	<input type="checkbox"/>											
DISMANTLING OPEN TYPE PROPELLER SHAPE	1	Checking straightness	2.5	<input type="checkbox"/>											
	2	Dismantling universal joints	2.5	<input type="checkbox"/>											
	3	Correct assembly of sliding joint	1.0	<input type="checkbox"/>											
DISMANTLING REARAXLE	1	Dismantle rear axle	5.0	<input type="checkbox"/>	<input type="checkbox"/>										
	2	Operation of each part	2.5		<input type="checkbox"/>										
	3	Provision for adjustment	10.0			<input type="checkbox"/>	<input type="checkbox"/>								
	4	Determination of velocity ratios	2.5				<input type="checkbox"/>								
	5	Removal & refitting of oil seals	1.0					<input type="checkbox"/>							

National Youth Service Engineering Institute										Approval	Principal	H.O.D				
Term Run Plan										Course:		Year:				
TOPICS 12-22										From: JAN.	To: APRIL					
			Month	1			2			3			4			
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	H/D													
17	INSPECTION OF FRONT AXLE	6 Inspection of alternative final drive	5.0													
		1 Dismantling from axle	4.0													
		2 Checking the axle	2.5													
		3 Adj. track alignment	2.5													
18	DISMANTLING STEERING GEAR BOX	1 Correct dismantling procedure	2.5													
		2 Operation of each part	2.5													
		3 Provisions for adjustment	5.0													
		1 Correct dismantling procedure	6.0													
19	INSPECTION OF BRAKES	2 Operation of parts	4.0													
		3 Provisions for adjustments	2.5													
		1 Checking chassis frame	5.0													
		2 Engine mountines suspension units &														

==== Plan ===== Remarks

National Youth Service Engineering Institute											Approval	Principal	H.O.D					
Term Run Plan											Course:		Year:					
											From:		To:					
				1			2			3			4					
Subject:				Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H\ D															
EXAMINING ELECTRICAL COMPONENTS		brake attachments	2.5										□					
	1	Examination of bulbs & lamps	2.5										□					
	2	Alignment of head-lamps	2.5										□					
	3	Making & insulating of connections for starter motor cables	2.5										□					
	4	Use of light cable connectors	2.5											□				
	5	Dismantling lead & cell	5.0											□	□			
		a) Examining																
		b) Re-building																
	6	Mixing sulphuric acid with water	5.0												□	□		
		a) Safety precautions																
		b) Use of sp. gravity values & voltage																
		to assess battery of state																

Plan
 Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D											
Term Run Plan				Course:		Year:											
				From: MAY	To: JULY												
				TOPICS 23-30													
			Month														
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H/D														
DISMANTLING & INSPECTION OF A PETROL ENGINE	7	Examination of cells															
		with known faults	5.0											<input type="checkbox"/>			
	1	Correct dismantling															
		procedure	5.0											<input type="checkbox"/>	<input type="checkbox"/>		
	2	Inspection of all															
		parts	5.0												<input type="checkbox"/>		
	3	Valve grinding &															
		valve seat refacing	5.0	<input type="checkbox"/>													
	4	Checking con-rods	2.5	<input type="checkbox"/>													
	5	Measuring cylinder															
	bores, c/shaft																
	camshafts & bearings	5.0	<input type="checkbox"/>	<input type="checkbox"/>													
6	Selection of pistons																
	& fitting of rings	2.5	<input type="checkbox"/>														
7	Boring of cylinder	1.0	<input type="checkbox"/>														
DISMANTLING & INSPECTION OF A CI ENGINE	1	Correct dismantling															
		procedure	5.0											<input type="checkbox"/>			
	2	Bleeding the system	1.0												<input type="checkbox"/>		
	3	Timing of pump	2.5												<input type="checkbox"/>		
	4	Checking functioning															
	of injectors (engine																

Plan Remarks

National Youth Service Engineering Institute				Approval	Principal	H.O.D										
Term Run Plan				Course:		Year:										
				From:		To:										
Month				4			5			6			7			
Subject:				1	2	3	4	5	6	7	8	9	10	11	12	13
Topics	Code	Sub-Topics	Week													
24 EXAMINING TYPICAL LUBRICATING SYSTEM		running)	2.5													
	5	Checking cylinder														
		compression	2.5													
	1	Oil pressure test	2.5													
	2	Correct dismantling														
		procedure of oil														
		pumps														
		a) Examining parts														
		b) Assembling														
		c) Testing pumps														
	3	Examination of full-														
		flow & by-pass														
		filters	2.5													
	4	Checking by-pass oil														
		pressure relieved val-														
	ues	2.5														
5	Checking oil pressu-															
	re-gauges	2.5														
25 RECONDITIONING OF COOLING SYSTEM	1	Dismantling, inspec-														
		tion & assembly	5.0													
	2	Pressure test of														

Plan Remarks

National Youth Service Engineering Institute				Approval		Principal		H.O.D									
Term Run Plan				Course:				Year:									
				From:				To:									
Subject:				4			5			6			7				
				1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H\D														
DISMANTLING CARBURETTOR		cooling system for															
		leaks	2.5														
	3	Simple flow test															
		through a radiator	1.0														
	4	Testing radiator															
		pressure caps	1.0														
	5	Checking thermostats	2.5														
	1	Correct procedure of															
		dismantling	2.5														
		a) Constnt choke	10.0														
	b) Variable choke	10.0															
2	Parts name & funct-																
	ion	10.0															
3	Special feature																
4	Adjusting the																
	carburettor	4.0															
DISMANTLING & INSPECTION OF (PETROL) PUMPS	1	Mechanical diaph-															
		ragm pump	5.0														
	2	Electrical diaph-															
	ragm pump	5.0															

National Youth Service Engineering Institute												Approval		Principal		H.O.D			
<h1>Term Run Plan</h1>												Course:		Year:					
												From:		To:					
				Month <u>4</u>			Month <u>5</u>			Month <u>6</u>			Month <u>7</u>						
Subject:				Week	1	2	3	4	5	6	7	8	9	10	11	12	13		
Topics		Code	Sub-Topics	H\O															
28	TESTING OF A COMPLETE IGNITION SYSTEM	1	Use of modern analyzer (on the vehicle)	10.0															
		2	Timing distributor to engine	2.5															
29	OVERHAULING INERTIA ENGAGEMENT STARTER	1	Correct procedure for dismantling	10.0															
		2	Testing																
		3	Testing spark plugs in pressure chamber	5															
30	TUBE REPAIR	1	Repairing of punctured tyres																

==== Plan _____ Remarks

National Youth Service Engineering Institute										Approval	Principal	H.O.D							
<h1>Term Run Plan</h1>										Course:		Year:							
										From:	To:								
				Month	9				10			11		12					
Subject: ENGINEERING DRAWING AND SKETCHING				Week	1	2	3	4	5	6	7	8	9	10	11	12	13		
Topics	Code	Sub-Topics	H/D																
1	INTRODUCTION	1	Drawing	0.5															
		2	Design	0.5															
		3	Draughtsman	0.5															
		4	Drawing and Design	0.5															
		As a means of communication																	
2	USE AND CARE OF DRAWING INSTRUMENTS	1	Need for Neatness and cleanliness	0.5															
		2	Drawing Papers	0.5															
		3	Pencils	0.5															
		4	Drawing Boards	0.5															
		5	Tee-Square	0.5															
		6	Protractors	0.5															
		7	RULES	0.5															
		8	Compasses and Dividers	0.5															
		9	Drawing Templates	0.5															
		10	Masking Tape and Clips	0.25															
		Springs etc																	

National Youth Service Engineering Institute				Approval	Principal	H.O.D	
Term Run Plan				Course: MVT		Year: 1989	
				From: SEP. 1989		To: JULY 1990	
				9		10	
				11		12	
Subject: ENGINEERING DRAWING AND SKETCHING				Week	1	2	
				3	4	5	
				6	7	8	
				9	10	11	
				12	13		
Topics	Code	Sub-Topics	H/D				
	11	Erasers and Erasing Shield	0.25				
	12	Pencil Sharpeners	0.25				
	13	Drafting Machine	0.75				
3 TYPES OF LINES AND THEIR APPLICATION	1	Dark Continuous	0.5				
	2	Dark Continuous Wavy	0.5				
	3	Short Dashes Thin	0.5				
	4	Continuous Line Thin	0.5				
	5	Long Chain Thin	0.5				
	6	Short Chain Thin	0.5				
	7	Long Chain Thick	0.5				
	8	Straight Line With Short Zig-Zags.	0.5				
	CONVENTION SYMBOLS AND LETTERING BS 308	1	Symbols for Various Components eg. Screw Threads, Springs etc.	4.0			

National Youth Service Engineering Institute				Approval	Principal	H.O.D												
Term Run Plan							Course:	Batch:										
							From:	To:										
				Month														
SUBJECT: ENGINEERING DRAWING AND SKETCHING				Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
	Topics	Code	Sub-Topics	H.O.D														
9	REGULAR POLYGONS	1	Types of Polygons	1.0													<input type="checkbox"/>	
		2	Construction of Polygons	4.0														<input type="checkbox"/>
10	Locci	1	Ellipse	2.0													<input type="checkbox"/>	
		2	Involute of a Circle	1.0														<input type="checkbox"/>
		3	Cycloid	2.0														<input type="checkbox"/>
		4	Piston Cranic	2.0														<input type="checkbox"/>
		5	Valve Timing Diagram	1.0														<input type="checkbox"/>
11	DEVELOPMENT	1	Development of Various Objects	8.0													<input type="checkbox"/>	
		1	Cubes, Cones etc.															<input type="checkbox"/>
12	SCREW THREADS	1	Screw Thread Terms	3.0													<input type="checkbox"/>	
		2	ISO Metric Threads	3.0														<input type="checkbox"/>
13	SCREWED FASTENINGS	1	Bolts and Nuts	1.0													<input type="checkbox"/>	
		2	Grub Screws	1.0														<input type="checkbox"/>

National Youth Service Engineering Institute				Approval	Principal	H.O.D											
Term Run Plan				Course:		Year:											
				From:		To:											
Month				4			5			6			7				
Subject:				1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H\ D														
10	PICTORIAL PROJECTION	1	Isometric	3.0													
			Projection														
20	Free hand sketching	2	Oblique Projection	3.0													
		1	Methods of Free-	2.0													
			Hand Sketching														
		2	Pictorial Sketching	6.0													
		3	Sketching Various	10.0													
			Components of MV														
21	Assembly Drawing		and Tools														
		1	Making Assy	4.0													
			Drawing														
		2	Information	2.0													
22	LINE DIAGRAMS		Required in Assy														
			Drawing														
		1	Line Diagrams	2.0													
			of Various MV														
			Systems.														
23	Limits and fits	2	Electrical Circuit	2.0													
			Diagrams														
		1	INTRODUCTION TO	1.5													
			Limits and Fits														

National Youth Service Engineering Institute										Approval	Principal	H.O.D					
<h1>Term Run Plan</h1>										Course:		Year:					
										From:		To:					
			Month	4			5			6			7				
Subject:			Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
Topics	Code	Sub-Topics	H/D														
ELECTRICAL SYMBOLS BS 3939	2	1 Their Inclusion	0.5										<input type="checkbox"/>				
		Indimensioning of															
		Drawings															
	1	Representation of	1.0											<input type="checkbox"/>			
		various Electrical															
		Components															
	2	Sketching of	5.0											<input type="checkbox"/>	<input type="checkbox"/>		
		Electrical															
		Components eg.															
		Distributor unit,															
	Starters etc.																

==== Plan _____ Remarks

