



# Gujarat Council of Vocational Training Gandhinagar



C 1345

1. Name of Course:

Air pollution control equipment-Operation and maintenance

N.C.O. No. for Skills Covered:  
(Please refer National Classification of Occupations -2004 available on www.dget.nic.in)


2. Engineering OR Non-engineering: Engineering

3. No. of students per batch: 20

4. Duration in Hours : 160 (Theory)+282(Practical) = 442 hrs

5. Duration in Month: 3 @ 28 hours/Week.

6. Examination Scheme:

No.	Name of Subject	Teaching Hours during full course.	Maximum Marks. (Excluding Sessional)	Minimum Marks required for Passing (Excluding Sessional).	Sessional Marks if any.
Subject-1	Air pollution and its impact on environment	15			
Subject-2	Air pollution control device for particulate matter	55			
Subject-3	Air pollution control device for gaseous	53			
Subject-4	Ambient air quality	17			
Subject-5	Soft skills (Theory)	20			
	Soft skills (Practical)	10			
Subject-6	Field work	208			
	Total (Theory)	160	100	40	20
	Total (practical)	282	300	180	60
	Grand total	442			





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7. Entry qualification for Trainee:

Minimum entry qualification (Essential):	10 <sup>th</sup> Pass / sponsored candidate from industry (8 <sup>th</sup> Pass+3yrs actual exp)
Desirable:	ITI Engineering Trade pass

3. Minimum qualification for Trainer:

Minimum qualification (Essential):	BE/ME/Diploma /MSc/Bsc
Desirable:	Environment sector experience





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### 9. Proposed Syllabus Committee Member:

Sr. No.	Name	Organization	Designation	Technical Qualification	Experience in Years	Signature
1	Shri Bharat Jain	GCPC	Member Secretary			
2	Shri Shailesh Patwari	NEPL	Chairman			
3	Shri Shankarbhai Patel	GESCSI	Chairman			
4	Shri Babubhai Patel	NIA-CETP	Chairman			
5	Shri N. S. Varundani	LD Engineering College	HOD, Env Engineering			
6	Shri. S. M. Jha	-	Retd. SES, GPCR			
7	Dipar Shah	Society for Environment Protection	Managing Coordinator	B. Tech		

### 10. Terminal Skills of trainee: (Should be well defined and having reference to NCO):

The trainee, after successful completion of training, will have following skills...

1. Should have broader and clear understanding of Environment, current concerns and issue of waste.
2. Can identify various types of air pollutions and Control measures required for its control.
3. Well acquaint with various types of Air pollution control equipments – its operations and maintenance.
4. Should be well versed with rules and regulations concerning Air pollution and basic equipment/methodology for its treatment.
5. Should be able to handle the operations safely including personal and environmental safety.





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6. Should be able to do basic maintenance of the equipment, identify errors and report them to appropriate authorities.

(please attach separate sheet, if more space is required)

1. Approximate cost of Tools / Equipments / Machinery for starting one batch of the course:

Rupees

Reference Year

2. Area required for practical / Workshop for one batch.

.....50..... Sq. Meter

3. Minimum Power connection required

.....15 hp.....

14.1 No of items in Standard list of Machinery :

14.1.1. Page NO from \_\_\_ to \_\_\_.

14.2 No of items in Standard list of Shop outfit :

14.2.1. Page NO from \_\_\_ to \_\_\_.

14.3 No of items in Standard list of Trainee Toll-Kit :

14.3.1. Page NO from \_\_\_ to \_\_\_.

\*\*\*\*\* FOR OFFICIAL USE \*\*\*\*\*





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Approved by GCVT in ~~Governing Body~~ meeting on

: 21-06-2012

Syllabus implemented w.e.f. admission session

: New session

Revision History :

1. Revision No ..... Revision Date.
2. Revision No ..... Revision Date.
3. Revision No ..... Revision Date.



WEEK	TOPIC	THEORY	FIELD WORK
	<b>Air pollution and its impact on environment</b>	4	
	Legal provisions		
	Air act 1981	3	
	Types of air pollution and its impact on environment and health	3	
	Types of Fuel and its impact process emission	3	
	Air monitoring and equipments	2	
	<b>Air pollution control device</b>	2	
	<b>A) Particulate matter</b>	2	4
	Measurement and monitoring		
	<b>Cyclone</b>	17	8
	Types of cyclone		
	Design and Operation criteria		
	Maintenance		
	Monitoring		
	Advantage and disadvantage		
	<b>Bagfilters</b>	17	8
	Design		
	Operation criteria		
	Maintenance		
	Monitoring		
	Advantage and disadvantage		
	<b>Electrostatic precipitators</b>	17	8
	Design		
	Operation criteria		
	Maintenance		
	Monitoring		
	Advantage and disadvantage		
	<b>B) Gaseous</b>	2	4
	Measurement and monitoring		
	<b>Scrubbers</b>	17	8



	Types of scrubbers		
	Design and operation criteria		
	Maintenance		
	Monitoring		
	Advantage and disadvantage		
	<b>NOx control</b>	17	8
	Design		
	Operation criteria		
	Maintenance		
	Monitoring		
	Advantage and disadvantage		
	<b>Sox Control</b>	17	8
	Design		
	Operation criteria		
	Maintenance		
	Monitoring		
	<b>C) Ambient</b>	17	8
	<b>Air Quality</b>		
	Definition		
	Legal provisions		
	Monitoring and measurement		
	Equipments and technology		
	Analysis and sampling		
	Impact on environment and health		
	<b>Soft skills</b>	20	10
	<b>Field work</b>		208
	<b>Total theory</b>	160	
	<b>Total practical</b>	282	

