



Republic of the Philippines
Department of Education

24 NOV 2015

DepEd MEMORANDUM
No. 144, s. 2015

**TRAINING-WORKSHOP ON THE USE AND CARE OF ADVANCED SCIENCE
EQUIPMENT AND SENSORS TO RECIPIENT RSHSs AND ESEP
HIGH SCHOOLS SCIENCE TEACHERS**

To : Undersecretaries
Assistant Secretaries
Bureau and Service Directors
Regional Directors
Schools Division Superintendents
Public Secondary School, Heads
All Others Concerned

1. To ensure the maximum utilization and proper care of the Advanced Science Equipment and Sensors distributed to the Regional Science High Schools (RSHSs) and Engineering and Science Education Program (ESEP) High Schools nationwide, the Department of Education-National Science Teaching Instrumentation Center (DepEd-NSTIC) will facilitate the **Training-Workshop on the Use and Care of Advanced Science Equipment and Sensors to Recipient RSHSs and ESEP High Schools Science Teachers** by area on the following dates with respective venues and number of participants:

Area	Region	Number of Recipient Schools	Number of Participants	Date	Venue
Luzon A	I	7	14	December 8-9 2015	Baguio Teachers Camp Baguio City
	II	7	14		
	III	8	16		
	CAR	3	6		
Sub-Total		25	50		
Luzon B	IV-A	10	20	December 14-15 2015	NCR RELC Marikina City
	IV-B	2	4		
	V	8	16		
	NCR	11	22		
Sub-Total		31	62		
Visayas	VI	9	18	December 17-18 2015	Ecotech Center Cebu City
	VII	7	14		
	VIII	2	4		
Subtotal		18	36		
Mindanao	IX	4	8	December 21-22 2015	RELC Davao City Region XI
	X	7	14		
	XI	5	10		
	XII	4	8		
	Caraga	3	6		
	ARMM	1	2		
Sub-Total		24	48		
TOTAL		98	196		

2. The Training-Workshop aims to:
 - a. familiarize the science teachers with the functionality, operation, application and maintenance of the delivered equipment and sensors for maximum utilization of the equipment; and
 - b. raise their level of awareness and competence in the manipulation of the equipment and to have them cascade the knowledge and skills acquired to other science teachers in their respective areas.

3. The conduct of the Training-Workshop to be facilitated by the DepEd-NSTIC is in compliance with the requirement of the contract for project *Mass Production and Supply and Delivery of Science and Mathematics Equipment to 544 Public Secondary Schools, RSHSs and ESEP Schools* mentioned in Bid Bulletin No. 1, Paragraph XI, issued on December 28, 2012, in which Section V. Special Conditions of Contract (SCC), GCC Clause 6.2 was amended to include training of teachers, to wit:

For Lots 8-11, the following are the training data...The Supplier(s) will train the participants on the operation and maintenance of the Advanced Science Equipment and Computer-Aided Science Learning System. They should provide user's manual and sample experiments manual for equipment which will be used in experimentation.

4. The participants to this activity are the 196 science teachers from the RSHSs and ESEP High Schools carefully selected by their respective Regional and Schools Division Science Supervisors based on the criteria set by NSTIC. The training matrix is enclosed for reference.
5. Physics and Chemistry teachers are the target participants of the workshop. The regional directors are requested to ensure that their respective regions can send the required number of participants to the Training-Workshop so that the delivered advanced science equipment can be fully utilized during classroom instruction, and its operating life will be maximized or even extended. Participants are requested to bring reference materials such as textbook and laptops.
6. The following recipient schools nearest to the training venue are requested to bring the complete package of the advanced science equipment they received for use during the Training-Workshop:

Venue	Recipient schools to bring complete package of the advanced science equipment
Region XI RELC Davao City	Daniel R. Aguinaldo NHS (Matina NHS), Matina, Davao City
	Region XI Science HS, Mati, Davao Oriental
	Sto. Tomas NHS, Sto. Tomas, Davao del Norte
Baguio Teachers Camp Baguio City	Baguio City NHS, Baguio City
	Pangasinan NHS, Lingayen
	Urdaneta City NHS, Urdaneta
NCR RELC Marikina City	Sta Elena HS, Marikina City
	Quezon City Science HS, Quezon City
	Ramon Magsaysay (Cubao) HS, Quezon City
Ecotech Center Cebu City	Ocana NHS, Carcar City
	Naga NHS, Naga City
	Uling NHS, Naga City

7. The participants who will bring their complete package of the advanced science equipment are requested to be at the training venue a day prior to Day 1 so that the NSTIC personnel can do the final evaluation of the condition of the equipment.

8. The first meal to be served will be lunch of the day prior to Day 1 and the last meal will be breakfast of the day after Day 2. Check-in will be 1:00 p.m. on the day prior to Day 1 while the check-out will be at 12:00 noon of the day after Day 2.

9. Payment of the board and lodging of the participants and facilitators, resource persons with allowable honoraria are chargeable to the Human Resource Training and Development (HRTD) Funds, while funds for the purchase of training materials, consumables and other related expenses will be charged to local funds, subject to the usual accounting and auditing rules and regulations.

10. For more information, all concerned may contact **Ms. Natalie O. Olis** or **Mr. Marvin S. Maquilas** at the Department of Education-National Science Teaching Instrumentation Center (DepEd-NSTIC), Ecotech Center, Sudlon, Lahug, Cebu City at telephone no. (032) 255-3633, telefax no. (032) 255-3005; mobile phone no. 0906-233-8659 or send a message through email address: depednstic@yahoo.com.

11. Immediate dissemination of this Memorandum is desired.


BR. ARMIN A. LUISTRO FSC
Secretary

Encl.:

As stated

Reference:

N o n e

To be indicated in the Perpetual Index
under the following subjects:

EQUIPMENT
LEARNING AREA, MATHEMATICS
SCHOOLS

SCIENCE EDUCATION
TEACHERS
TRAINING PROGRAMS

In-Service Training on Use and Care of Science Equipment with Content Enrichment for Science Teachers of NSTIC Advance Science Equipment Recipient RSHS and ESEP Schools, on the following venues and dates :

Davao City RELC : **December 21-22, 2015** for Mindanao Cluster Recipient Schools

Baguio City Teachers'Camp : **December 8-9, 2015** for Region I, Region II, Region III, CAR Cluster Recipient Schools

Marikina City RELC : **December 14-15, 2015** for NCR, Region IV-A, Region IV-B, Region V Cluster Recipient Schools

Cebu City ECOTECH CENTER : **December 17-18, 2015** for Visayas Cluster Recipient Schools

DAY/TIME	8:00 - 8:30	8:30 - 10:00	10:00 - 12:00	12:00-1:00	1:00 - 3:00	3:00 - 5:00
Day 1	Opening Program Overview of Activities	SESSION 1 EQUIPMENT : 1. Toploading Electronic Balance 2. Magnetic Stirrer 3. Hot Plate 4. Rubber Pipettor 5. Graduated Pipette	SESSION 2 EQUIPMENT : 6. Microscope, Oil Immersion 7. Dissecting Microscope Canada Balsam (misc. items) 8. Burettes, base and acid	L U N C H	SESSION 3 EQUIPMENT : 9. Variable Micropipettes with pipette tips 10. Oscilloscope 11. AM-FM Radio Demo Receiver	SESSION 4 EQUIPMENT : 12. Force Table 13. Basic Radioactive Kit (Geiger Counter)
		SESSION 5 EQUIPMENT : 1. Motion Sensor 2. Force Sensor 3. Voltage/Current Sensor 4. Conductivity Sensor 5. Magnetic Field Sensor 6. Light Sensor	SESSION 2 EQUIPMENT : 7. Temperature/Surface Temp. Sensor 8. Water Quality, Salinity Sensor 9. Carbon Dioxide Gas Sensor 10. Oxygen Gas Sensor 11. Barometer, Low Pressure Sensor 12. Neulog Ecology System		SESSION 3 EQUIPMENT : 13. Barometer/Low Pressure Sensor 14. Absolute Pressure Sensor 15. High Accuracy Drop Counter 16. Colorimeter 17. pH Sensor	SESSION 4 EQUIPMENT : 18. Turbidity Sensor 19. Weather/Anemometer Sensor 20. Humidity Sensor 21. GPS Position Sensor 22. Soil Moisture Sensor
Day 2	Introduction of Computer Aided Science Learning System hardware and Software			B R E A K		

Scope of Training :

1. Discussion of equipment features
2. Demonstration of operational procedures
3. Hands-on activities by teacher participants
4. Safety and maintenance procedures

NOTE : All sessions are plenary

Schedule subject to change, overtime work may be done as need arise