

*for shopping (OTM)*

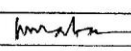
## PURCHASE REQUEST

**Technological University of the Philippines**  
(Agency)

*for shopping*

Department: COLLEGE OF SCIENCE Date: January 21, 2015 PR No. \_\_\_\_\_ Date: \_\_\_\_\_  
 Section: Physics Department SAI No. \_\_\_\_\_ Date: \_\_\_\_\_  
 ALOBS No. \_\_\_\_\_ Date: \_\_\_\_\_

QTY	Unit of Issue	Item Description	Stock No.	Estimated Unit Cost	Estimated Cost
2	set	Steam generator. Variable steam output, rapid heating and automatic safety shut-off. Brings 3/4 of a liter of water to aboil in ten minutes and provides continuous steam at up to 10 g/min. With dual steam ports that can supply two lab groups simultaneously, rubber stopper, internal electric heater, extra wide base, low power warning light, and variable power (0-400 watts). PASCO (TD-8556A) or equivalent.			
2	unit	Tension protractor. A spring scale and protractor integrated into one device. Specifications: Force range: 0 N to 10 N Smallest Force Division: 0.1 N Force Accuracy: $\pm 4\%$ of reading Angle Range: -90% to +90% Smallest Angle Division: 1 degree Diameter: 15 cm Includes unit warranty and on-site training on the use of the device. PASCO (ME-6855) or equivalent.			
2	set	Super pulley force table. A 25 cm diameter table with detachable legs, three adjustable Super Pulleys with Clamps, and a spool of thread. PASCO ME-9447B			
2	set	Discover friction accessory. Compatible with PASCO carts and sensors. This accessory includes a felt tray, a cork tray, and two plastic trays. PASCO (ME-8574) or equivalent.			
2	set	Discover density set. A set of 22 separate pieces allows students to discover the relationship between density, volume, and dimensions. Two unique pieces of series hold one dimension constant while varying another. It includes cylinders of same length and different diameters (4), cylinders of same diameter and different lengths (4), spheres with different diameters (4), rectangular shapes of various sizes and materials (10), and an instructional manual. PASCO (SE-9719A) or equivalent.			
1	set	Digital photogate timer system. Built-in photogate 0.1 ms resolution and 0.05 % accuracy. With memory function that allows two measurements in rapid succession, such as pre and post-collision velocities. Use four "C" cells or 9 V AC adapter. PASCO (ME-9403A) or equivalent.			
1	set	Thermal conductivity apparatus. Includes stand with insulating pads, steam chamber, ice molds (2), 12.7 cm squares of glass, wood, polycarbonate, masonite, sheetrock, plastic tubing to connect steam genertor, and			

		instruction manual and experiment guide. PASCO (TD-8561) or equivalent.			
1	set	Classic electrostatic materials kit. Includes three rods (acrylic, glass, PVC), two insulated pivot stands, and three rubbing cloths (wool, silk, fur). PASCO (SF-9068) or equivalent.			
1	set	Basic calorimetry set/Thermodynamics kit. An affordable introduction to thermodynamics. Includes six calorimeters, alcohol thermometer, samples of aluminum, copper, and tungsten. Water trap and plastic tubing also included. PASCO (TD-8557A) or equivalent.			
1	unit	AC/DC electronics laboratory. Dynamically teaches the basics of AC/DC circuits. It can be a stand-alone unit or it can be used with a ScienceWorkshop Computer Interface and Power Amplifier. The kit includes: 18 cm x 25 cm circuit board resistors (24) (4.7 $\Omega$ - 220 k $\Omega$ , 5%, 0.25-5 W) capacitors (7) (1 $\mu$ F-330 $\mu$ F) diodes (6), transistors (2), and LED's (4) wire leads (22 gauge) push button switch storage tray and laboratory manual battery holders light sockets (3) and lamps (3) 25 $\Omega$ , 2 W potentiometer (1) component connectors transistor socket (1) 8.2 to 19 mH coil and iron core PASCO (EM-8656) or equivalent			
1	unit	Bounce pad. PASCO (SE-7347) or equivalent.			
1	unit	PASPORT digital adapter. PASCO (PS-2159) or equivalent.			
4	unit	Analog multimeter. SANWA brand or equivalent.			
2	set	Atwood's machine. PASCO (SA-9241) or equivalent.			
1	unit	Digital balance. PASCO (SE-8757A) or equivalent.			
		None Follows	<b>Total</b>		<b>476150.00</b>
		<b>Notes:</b>			
		1. All the items above are included in the PPMP of the department for 2014.			
		2. The devices and equipments included above are needed in the conduct of instruction in the physics department this 2nd semester, SY 2014-2015.			
		3. ScienceStar Corporation is the exclusive distributor of the abovementioned devices.			
		<b>APPROVED:</b>			
		<b>ADORA S. PILI, Ph.D.</b> President			
		Requested by:	Recommended for Approval by:		
Signature:					
Printed Name:		<b>NELSON M. ABANA</b>			<b>MELITO A. BACCAY, Eng.D.</b>
Designation:		Head, Physics Department			Vice President for Academic Affairs