



Prof. Edgar Lopategui Corsino
M.A., Fisiología del Ejercicio

ACCESO: <http://saludmed.com/Quotations-Lab/Propuesta LAB FisiolEjer.pdf>

PROPUESTA PARA UN LABORATORIO DE FISIOLÓGÍA DEL EJERCICIO

Prof. Edgar Lopategui Corsino
MA, Fisiología del Ejercicio

INSTALACIONES, LABORATORIOS Y EQUIPOS AUXILIARES A LA DOCENCIA

Descripción de las instalaciones disponibles para el programa, tales como: salones y laboratorios.

Se planifica reconstruir y habilitar un salón para ser utilizado como un Laboratorio de Fisiología del Ejercicio y Kinesiólogía, adscrito al Programa de Educación Física, bajo la Facultad de Educación de la Universidad. La inversión económica para la creación de este laboratorio, con sus respectivos equipos y mobiliario, asciende aproximadamente a 90 mil dólares (\$90,000.00).

El salón será de tamaño apropiado, ventilado (aunque se instalará un sistema de aire acondicionado) y con la apropiada iluminación. Además, se instalarán algunos anaqueles para almacenar con seguridad los equipos de menor tamaño, como los son: los esfigmomanómetros, estetoscopios, espirómetros pequeños, psicómetros, reglas antropométricas, goniómetros, electrocardiógrafo pequeño y otros. Más aún, tales almacenes servirán para guardar los manuales de los equipos y diversos materiales, a saber: electrodos, cables de electrocardiografía, papel de EKG, entre otros.

A continuación, se describen los equipos y materiales requeridos para el propuesto laboratorio; se incluye: costo unitario, costo total, tipo de pago que requiere (Ej.: prepagado, orden de compra u otro), las compañías cotizadas y la dirección (física y la de Internet/Web) de éstas.

Equipos para Evaluaciones Cardiovasculares

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
2	1	Mercury Sphygmomanometer – Desk Style	P.O./COD	\$70.50	\$141.00
1	1	Mercury Sphygmomanometer – Standing Floor Style, Adult Black nylon cuff	P.O./COD	\$200.00	\$200.00
2	1	Anaeroid Sphygmomanometer (Adult nylon cuff)	P.O./COD	\$19.99	\$39.98
1	1	Portable floor standing aneroid. Large 6" dial, adult nylon cuff and storage basket, 5-leg base, height from 36" to 42".	P.O./COD	\$225.00	\$225.00
5	1	Stethoscopes, low cost	P.O./COD	\$5.00	\$25.00
5	1	Stethoscope, dual head teaching stethoscope – 2 binaurals	P.O./COD	\$65.00	\$325.00
3	1	Stethoscopes (Adscope 609, High sensitive, dual head, 22" tub)	P.O./COD	\$16.00	\$16.00
1	1	Electronic Heart Rate Monitor (Polar) Model Vantage, (includes chest elastic strap transmitter, with electrodes).	P.O./COD	\$350.00	\$350.00
2	1	Pulse meter/monitor, finger tip pulse reader	P.O./COD	\$45.00	\$90.00
1	1	Pulse meter/monitor, Earlobe sensor type, Suiths	P.O./COD	\$968.09	\$968.09
1	1	Electrocardiograph (EKG Machine), 12 Lead	P.O./COD	\$1,850.00	\$1,850.00
3	1	EKG Paper (Medium), rolls	P.O./COD	\$10.00	\$30.00
12	1	EKG gel, tubes	P.O./COD	\$6.00	\$72.00
1	1	EKG/Strip Caliper	P.O./COD	\$66.00	\$66.00
4	1	Alcohol Gauze Swabs, boxes	P.O./COD	\$10.00	\$40.00
2	1	Alcohol, gallons	P.O./COD	\$7.00	\$14.00
1	1	Examining table, vinyl-covered padding	P.O./COD	\$300.00	\$300.00
12	1	Paper for examining table, Standard, 21", rolls	P.O./COD	\$6.00	72.00

Subtotal: \$4,824.07

Equipos para Pruebas Ergométricas y de Espirometría en Circuito Abierto

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	12 Lead Stress Testing Cable Adapter for EKG Machine (for electrode pads)	P.O./COD	\$600.00	\$600.00
3	1	Stress Test Electrodes Pads, round	P.O./COD	\$17.50	\$52.50
1	1	"Un-Gue" Adhesive Remover	P.O./COD	\$27.50	\$27.50
1	1	Stress Test Shirt (Omnidirectional Stretchable Net Shirt)	P.O./COD	\$29.95	\$29.95
1	1	Electronic metronome	P.O./COD	\$84.00	\$84.00
1	1	Professional Mercury barometer	P.O./COD	\$945.00	\$945.00
1	1	Thermometer/Humidity Meter	P.O./COD	\$36.98	\$36.98
1	1	Wet/dry Bulb Hygrometer – Wall Hygrometer	P.O./COD	\$90.85	\$90.85
1	1	Mason's Hygrometer For accurate measurement of the day's humidity	P.O./COD	\$95.85	\$95.85
1	1	Examining table, vinyl-covered padding	P.O./COD	\$350.00	\$350.00
1	1	Monark cycle ergometer (Professional-Model 818E – Testing Ergometer)	P.O./COD	\$1,100.00	\$1,100.00
1	1	2kg calibration weight for Monark cycle ergometer	P.O./COD	\$99.00	\$99.00
1	1	Treadmill Ergometer: GE Marquette Case Value Basic Stress System with T2000 Treadmill	P.O./COD	\$14,875.00	\$14,875.00
1	1	Step Test Bench. Non skid stepping surface. Height adjusts from 4" to 12". 200 pound static weight	P.O./COD	\$90.00	\$90.00
1	1	Step Test Kit	P.O./COD	\$87.00	\$87.00
1	1	Complete Vista Metabolic Measurement System	P.O./COD	\$20,930.00	\$20,930.00
1	1	Adult Mouthpieces 10/box	P.O./COD	33.95	33.95
1	1	Exercise Test Masks, Adult, for Mouth & Nose Breathing, Medium Mask with large R2700 T-shape valve (35 mm ports)	P.O./COD	\$481.00	\$481.00
1	1	Mixing Chamber, 5-liter with KL flow sensor inlet port	P.O./COD	\$695.00	\$695.00
5	1	Meteorological Balloons: 100-liter Gas Collection balloon, 30" dia	P.O./COD	\$76.45	\$382.25
5	1	Q-Valve Housing for standard "T" setup	P.O./COD	\$31.50	\$177.50
1	1	4-BALLOON T-VALVE 22mm OD	P.O./COD	\$666.00	\$666.00
1	1	3-liter Calibration Syringe	P.O./COD	\$325.00	\$325.00
1	1	Air Flow Meter	P.O./COD	\$2,935.00	\$2,935.00
1	1	CLEAN-BOR TUBE 1-1/8x14, BOX OF 50	P.O./COD	\$ 252.00	\$252.00
1	1	Numeral Pacedlocks (Marie, Pacelox V. Large 20" with 2" numerals	P.O./COD	\$180.00	\$180.00
1	1	Magnum Digital Clocks	P.O./COD	\$74.95	\$74.95

Subtotal: \$45,696.28

Equipos para Mediciones Pulmonares/Respiratorias

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	Teaching Wet Spirometer	P.O./COD	\$8,475.00	\$8,475.00
1	1	Electronic Spirometer	P.O./COD	\$695.00	\$695.00
1	1	Spiro-Pet Portable Spirometer. Measures forced vital capacity (FVC).	P.O./COD	\$201.25	\$201.25
5	1	Noseclips	P.O./COD	\$16.00	\$80.00

Subtotal: \$9,451.00

Equipos para La Valoración Neuromuscular: Fortaleza Muscular, Potencia, Reacción al Tiempo

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	Lafayette Analog Grip Tester/Dynamometer with case 2 pointers. Read in kilos and pounds up to 100kg/220lbs	P.O./COD	\$389.00	\$389.00
1	1	Smedley III Spring-Type Hand Dynamometer (Adult)	P.O./COD	\$190.00	\$190.00
1	1	Jamar Hydraulic Dynamometer with case. 2 pointers. Read in kilos and pounds up to 90kg/200lbs	P.O./COD	\$322.00	\$322.00
1	1	Back, Leg and Chest Dynamometer	P.O./COD	\$278.00	\$278.00
1	1	Quickstick reaction time tester (Class Size Kit - 15 Quiksticks)	P.O./COD	\$87.30	\$87.30
1	1	Reaction Time/Movement Time Panel with psymcon control Model 35600	P.O./COD	\$90.97	\$90.97
1	1	Just Jump Measurement System - Large	P.O./COD	\$499.00	\$499.00
1	1	Power Pack Ultra, for use with Cycle Ergometer	P.O./COD	\$950.00	\$950.00
1	1	Vertical Jump Measurement Device (Vertec)	P.O./COD	\$520.00	\$520.00
1	1	Wall-Mounted Vertical Jump Tester	P.O./COD	\$89.95	\$89.95
1	1	Electronic Jump Mat, High-Precision Contact Devices for Biometric Cinematic Tests	P.O./COD	\$825.00	\$825.00

Subtotal: \$4,441.22

Equipos para Evaluar la Flexibilidad Lineal y Arco de Movimiento

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	Leighton gravity flexometer	P.O./COD	\$550.00	\$550.00
1	1	Full Size Goniometer- Stainless Steel, 360° Scale, 14" Long	P.O./COD	\$48.00	\$48.00
1	1	Goniometer for smaller joints- Stainless Steel, 180° Scale, 8" Long	P.O./COD	\$25.00	\$25.00
1	1	Finger goniometer- Stainless Steel, 180° Scale, 6" Long, delux	P.O./COD	\$32.00	\$32.00
1	1	Biplane Goniometer	P.O./COD	\$59.95	\$59.95
1	1	Digital Inclinator	P.O./COD	\$325.00	\$325.00
1	1	Baseline Bubble Inclinator	P.O./COD	\$78.00	\$78.00
1	1	Sit and Reach Box (Trunk Flexibility Tester) – Novel Acuflex I	P.O./COD	\$280.00	\$280.00
1	1	Trunk Rotation Test– Novel Acuflex II	P.O./COD	\$215.00	\$215.00
1	1	Shoulder Rotation Test with Caliper– Novel Acuflex III	P.O./COD	\$92.50	\$92.50

Subtotal: \$1,707.45

Equipos para Pruebas Antropométricas

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	Skinfold caliper, Lange	P.O./COD	\$285.00	\$285.00
1	1	Skinfold caliper, Harpenden	P.O./COD	\$395.00	\$395.00
1	1	Skyndex I, w/Durnin and Jackson Pollock formula compo	P.O./COD	\$450.00	\$450.00
1	1	Impedance body composition analyzer–	P.O./COD	\$1,495.00	\$1,495.00
1	1	Body Fat Analyzer: Omron Body Logic. New model. Hand held bioimpedance body fat analyzer with adult and athletic modes.	P.O./COD	\$63.00	\$63.00
1	1	Skinfold calibration block. 15 mm	P.O./COD	\$14.00	\$14.00
1	1	Skinfold Caliper Calibration Block 25mm	P.O./COD	\$22.00	\$22.00
1	1	Lange calibration block	P.O./COD	\$14.00	\$14.00
1	1	Hydrostatic Weighing Tank, Stainless Steel, round	P.O./COD	\$13,535.00	\$13,535.00
1	1	NYLON CHAIR & WEIGHTBELT	P.O./COD	\$225.00	\$225.00
1	1	PUMP FILTER HEATER 220V	P.O./COD	\$1,535.00	\$1,535.00
1	1	Chatillion Scale, 15 kg	P.O./COD	\$849.00	\$849.00
1	1	Gulick spring loaded anthropometric measuring tape, fiberglass. Self-winding case. Calibrated tension device, inches and centimeters. Measures to 60 in. & 150 cm.	P.O./COD	\$27.50	\$27.50
1	1	Fiberglass measuring tape. Self-winding case, extended end, 60 inches & 150cm	P.O./COD	\$4.20	\$4.20
1	1	Linen Tape, 1500	P.O./COD	\$8.00	\$8.00
1	1	Anthropometric Kit/Set (Rosscraft TommKit)	P.O./COD	\$174.00	\$174.00
1	1	Large Skeletal Anthropometer Sliding Rule C Arm, Range to 60 cm (Lafayette	P.O./COD	\$150.00	\$150.00
1	1	Spreading Caliper, rounded	P.O./COD	\$867.00	\$867.00
1	1	Weight scale – balance beam (Detecto-Medic)	P.O./COD	\$310.00	\$310.00
1	1	Height Stadiometer (wall mounted)	P.O./COD	\$125.00	\$125.00
1	1	Posture Analysis Grid (Reedco Symmetrigrat Posture Grid. Heavy duty, 48" long, rigid plexiglas	P.O./COD	\$214.00	\$214.00

Subtotal:

\$20,761.70

Otros Equipos

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	Utility Cart with handles: 3 Shelves		\$265.00	\$265.00
1	1	Pedometer (Digi-Walker AE120 with strap)		\$19.95	\$19.95
1	1	Digital thermometer, with electrodes		\$97.50	\$97.50
1	1	Welch Allyn SureTemp® Plus 690 Thermometer		\$279.00	\$279.00

Subtotal: \$661.00

Equipos para Kinesiología y Biomecánica

Qty	Unit	Descripción	Método de Pago	Precio Unitario	Total
1	1	Anatomical Models: Skeletons	P.O./COD	\$275.00	\$275.00
1	1	Functional Knee Joint Model	P.O./COD	\$108.00	\$108.00
1	1	Functional Shoulder Joint Model	P.O./COD	\$108.00	\$108.00
1	1	Functional Hip Joint Model	P.O./COD	\$108.00	\$108.00
1	1	Functional Elbow Joint Model	P.O./COD	\$108.00	\$108.00
1	1	Ligamented Knee	P.O./COD	\$143.10	\$143.10
1	1	Ligamented Shoulder	P.O./COD	\$208.25	\$208.25
1	1	Musclled Shoulder Joint Model	P.O./COD	\$98.00	\$98.00
1	1	37-Part Life-Size Male Muscular Figure	P.O./COD	\$5,995.95	\$5,995.95
1	1	Heart Model	P.O./COD	\$59.95	\$59.95

Subtotal: \$7,212.25

Gran Total: \$90,313.75

C. Permisos

Copia de Arpe, Bomberos y Salud

D. Breve explicación del impacto en las instalaciones existentes al Implantarse el programa.

El Laboratorio de Fisiología del Ejercicio y Kinesiología servirá para muchos propósitos de nuestro programa tales como:

- Avalúo de la aptitud física
- Pruebas de tolerancia cardiorrespiratoria
- Evaluación de la flexibilidad lineal y angular
- Pruebas para medir la tolerancia y fortaleza muscular.

- Pruebas para medir la potencia muscular y capacidad anaeróbica.
- Otras medidas de la capacidad motora (Ej: agilidad, equilibrio, reacción al tiempo y tras)
- Análisis biomecánico.
- Ejecutoria de destrezas motoras.
- Práctica de vendajes, aplicación de férulas, entre otros.
- Batería de ejercicios programados.

Los equipos y materiales del propuesto laboratorio se habrán de cotizar y comprar de los proveedores que se describen a continuación:

Compañías en Puerto Rico

O & M Sales and Services, Inc (Odniel Pagán, Inc)

P.O. Box 8753, Plaza Carolina Station

Carolina, P.R. 00988-8753

Tel/Fax: (787) 276-1911

ATT: Ivette Incle, Departamento de Contabilidad y Ventas

E-mail: ivetteincle@omsalespr.com

Puerto Rico Hospital Supply Inc.

Dirección Física:

Ave. Rosendo Vela Acosta, Lot #4

Carolina, PR 00987

Dirección Postal:

Call Box 158

Carolina, PR 00986-0158

Tel: (787) 622-5151, (787) 622-5502, (787) 622-5500

Servicio al Cliente:

Tel : (787) 622-5165

Fax : (787) 622-5156

Web: <http://www.prhospital.com>

Caribe Medical Supply

1351 Antonio Arrollo, Esq. Paz Granela

San Juan, P.R. 00921

ATT: María del Carmen Suero

Tel: (787) 783-0072, (787) 787-0815

Fax: (787) 783-0840

Fitness Warehouse

260 Ave J T Piñero Univ Gardens

Rio Piedras

Tel: (787) 751-1353

Fax: (787) 764-8262

Bayamón Hospital Supply

Tel: (787) 785-9615, (787) 787-1644



Fax: (787) 786-2593
ATT: Lisa Cintrón – (787) 787-1525

Rio Piedras Plaza Medical

76 Georgetti
Rio Piedras, 00925-3607
Tel/Fax: (787) 765-6019
ATT: Francisco Ojeda
E-mail: francisoojeda559@hotmail.com

UMECO, Inc.

Dirección Física:
171 Calle Federico Costa, Esq. Buonomo, Suite 100,
San Juan, Puerto Rico 00918-1307
Dirección Postal:
P.O. Box 21536, San Juan, Puerto Rico 00928-1536
Teléfonos:
Toll Free: 1-(800) 981-1976
Main: (787) 620-0011
Fax: (787) 766-0057
Fax, Servicio al Cliente: (787) 758-2925
CLARIBEL DIAZ Sales Representative c_diaz@umecopr.com
GILBERTO MENDEZ Sales Representative g_mendez@umecopr.com
IRIS NEGRON Sales Representative i_negron@umecopr.com
JOSE BURGOS Sales Representative j_burgos@umecopr.com
JUAN M. MARTINEZ Sales Representative j_martinez@umecopr.com
MIGDALIA FIGUEROA Sales Representative m_figueroa@umecopr.com
NEYSA PEREZ Sales Representative n_perez@umecopr.com
RAFAEL LOPEZ DE VICTORIA Sales Representative r_lopezdevictoria@umecopr.com
GERALDO CABRERA Sales Representative g_cabrera@umecopr.com
MARIA CORTES - Purchasing: m_cortes@umecopr.com
NILDA FLORES - Purchasing: n_flores@umecopr.com
WEB: http://www.umecopr.com/pages/inside_umeco.html
FAX: 787-798-3219
Sonia Flores, Telemercadeo

Medical Logistics, Inc

Tel: (787) 708-4481
Fax: (787) 708-4483, (787) 474-4890
Att: TR o Quique

Compañías en Estados Unidos:

Country Technology, Inc.

P.O. Box 87



Gays Mills, WI 54631
Tel: (608) 735-4718
Fax: (608) 735-4859
E-mail: ctech@mwt.net

Creative Health Products, Inc
5148 Saddle Ridge Road
Plymouth, MI 48170
Tel: (800) 742-4478
Fax: (734) 996-4650
E-mail: sales@chponline.com
Web: <http://www.chponline.com/>

Novel Products, Inc.
P.O. Box 408
Rockton, IL 61072-0408
Tel: 1-(815) 624-4888, 1-(800) 323-5143
Fax: 1-815-624-4866
<http://novelproductsinc.com/>

Lafayette
3700 Sagamore Parkway North - PO Box 5729
Lafayette, IN 47904
Tel: (765) 423-1505, Toll Free: (800) 428-7545
Fax: (765) 423-4111
Para más información, favor de comunicarse con:
Brian Brown, 765.423.1505 ext. 202
E-mail: bbrown@lafayetteinstrument.com
Web: <http://www.lafayetteinstrument.com/Evaluation.htm>

Vacumed
4538 Westinghouse Street
Ventura, California 93003
Tel: (805) 644-7461, Toll-free: (800) 235-3333
Fax: (805) 654-8759
Celular: (805) 320-0654
E-mail (principal): info@vacumed.com, (segundario): jhoppe2@adelphia.net
Yahoo Instant Messenger (Business hours): [vacumed](#)
Yahoo Instant Messenger (After hours): [johnhoppevacumed](#)
Skype (After normal business hours) : [john.hoppe](#)
Web: <http://www.vacumed.com/>

Hans Rudolph, Inc.
7200 Wyandotte
Kansas City, Missouri 64114
TOLL FREE: 800-456-6695
Tel: (816) 363-5522



Fax: (816) 822-1414

Web: <http://www.rudolphkc.com/>

Power Systems, Inc.

Power Systems / Marketing

c/o New Product Review

2527 Westcott Blvd.

Knoxville, TN 37931

Web: <http://www.power-systems.com/P/Testing/default.aspx>

Perform Better

Web: <http://www.performbetter.com/>

Power Systems, Inc.

Tel: 1 (800) 321-6975, 1 (865) 769-8223

Fax: 1 (800) 298-2057

Web: <http://www.power-systems.com/>

M-F Athletic Company Inc.

11 Amflex Dr., Cranston RI 02921

Tel: (800) 682-6950

Web: <http://www.everythingtrackandfield.com/>

<http://www.mfathletic.com>

Fisher Scientific

Contact Fisher Customer Service

by email, phone, or fax for product- or order-related questions.

Customer Service Phone Fax

General Customer Service 1-(800) 766-7000, 1 (800) 926-1166

Education Customers (College/University): 1 (800) 766-7000, 1 (800) 926-1166

HealthCare Customers: 1 (800) 640-0640, 1 (800) 290-0290

Safety Customers: 1 (800) 772-6733, 1 (800) 772-7702

Education Customers (Grades K-12): 1 (800) 955-1177, 1 (800) 955-0740

Support: Tel: 1 (877) 885-2081

Web: <https://www1.fishersci.com/index.jsp>

Future Health Concepts

1211 30th Street

Sanford, FL 32773

Tel: 1 (888) 282-8644, 1 (407) 322-3672

Fax: 1 (407) 322-3871

Email: sales@fhcusa.com



Web: <http://www.futurehealthconcepts.com/>

Seritex, Inc.

One Madison Street East Rutherford, NJ 07073

Tel: (973) 472-4200

Fax: (973) 472-0222

Web: <http://www.seritex.com/>

Sammons Preston - U.S.A

Mail to: Sammons Preston, P.O. Box 5071,

Bolingbrook, IL 60440-5071

Email: customersupport@sammonspreston.com

Tel: toll-free: (800) 323-5547

Fax toll-free: (800) 547-4333

Bolingbrook Office:

Corporate Headquarters

1000 Remington Blvd., Suite 210

Bolingbrook, IL 60440-5117

Tel: (630) 378-6000

Fax: (630) 378-6010

Wisconsin Office:

W68 N158 Evergreen Blvd.

Cedarburg, WI 53012

Tel: (800) 228-3693

Fax: (262) 387-8748

Web: <http://www.sammonspreston.com/>

Quinton Instruments Co.

3303 Monte Villa Parkway

Bothell, WA98021-8906

Tel: (425) 402-2000, (800) 426-0337 (Toll-Free US)

Web: <http://www.quinton.com/>

Medical Resources is a division of EOI, Inc.

8377 C Green Meadows Dr N

Lewis Center, Ohio 43035, USA

Tel: 1 (800) 860-4716

Fax: 1 (740) 201-3309

Web: <http://www.medicalresources.com/>

Polar Electro, Inc.

370 Cross Park Drive

Woodbury, NY 11797

Tel: 1 (800) 227-1314

Fax: 1 (888) 918-5043

Web: <http://www.polarusa.com>

SMI Sports Medicine Industries, Inc.

1806 Danielle Drive
St. Cloud, MN 56301
Tel: (320) 252-8577
Fax: (320) 202-0816

Production Engineering. PEMED

Web: <http://www.pemed.com/physther/physther.htm>

FEENIX, INC WEB-SHOPS.NET

einsteins-emporium.com

Tool Free: 1 (800) 522-8281

Web: <http://www.einsteins-emporium.com/science/human-anatomy/sh372.htm>

Ejemplo de un correo electrónico para solicitar una cotización de equipos

Gentlemen:

My name is John Dow (Exercise Physiologist), and I am writing from Puerto Rico (US Commonwealth Territory). I work at the **University of...**

Please send me a QUOTATION for the equipments listed below. Please include: **Cost, Shipping and Handling**, and **Payment Type** (Purchase Order [PO] or Pre-payment). This QUOTATION can be sent by:

FAX: (787)...., **ATTN: John Dow**, or
(787)...., **ATTN: Robert Dow**

E-MAIL: johndow@mail.com
robertdow@mail.com

A prompt reply of our request will be appreciated. I thank you in advance.