STUDENT TECHNOLOGY

GRANT PROPOSAL # 305.016

S-27485

2014 – 2015

TRACY BROWN: ACCEPTED ✓ OPPOSED: _____

COMMENTS:
$67 per student average only 300 student impact

SIGNATURE: Tracy B DATE: 12/4/14

HEATH FITTS: ACCEPTED _____ OPPOSED: _____

COMMENTS:

SIGNATURE: _____ DATE: _____

SHAWN PARR: ACCEPTED _____ OPPOSED: _____

COMMENTS:

SIGNATURE: _____ DATE: _____

CHRIS PARISH: ACCEPTED _____ OPPOSED: _____

COMMENTS:

SIGNATURE: _____ DATE: _____

BRANDON CRAIG: ACCEPTED _____ OPPOSED: _____

COMMENTS:

SIGNATURE: _____ DATE: _____

RON WRIGHT: ACCEPTED _____ OPPOSED: ✓

COMMENTS:

SIGNATURE: [signature] DATE: 12.9.14

2015.016
Priority #3

Student Technology Fee
Grant Proposal Request Form
Fiscal Year 2014-15
Northwestern State University of Louisiana

ALL BLANKS MUST BE FILLED COMPLETELY

Prepared by: Greg A. Hogan For: Life Science

Department/Unit: Biology & Physical Science College: Science, Tech. & Business Campus: Natchitoches

Which NSTEP Goals/Objectives does this project meet? Objective #3

Requested equipment will be located/installed/housed? Building Fournet Room 212

Does the department requesting funding receive lab fees? (circle one) (YES) NO

Are department property policies and procedures in place for requested equipment? Yes

Which individual will be responsible for property control of the requested equipment?

Signature: [signature] Date: 12/01/2014

Proposal Requested Amount:$ 20,070.06 Budget Attached (circle one): (YES) NO

Proposal delivered to Student Technology located in Watson Library, Room 113. Date _____

The proposal must include all specifications, descriptive, model number, quotation, cost, state contract number, and vendor for each item. If the proposal does not include all requested information, it will be returned.

1. Describe target audience. Members of the Student Technology Grant Committee.
2. Describe project/initiative for which you are requesting funds. This project is designed to purchase new equipment in efforts to maintain an up-to-date chemical lab where all equipment functions properly. Over the years, laboratory equipment must be replaced to keep up with the high use and demand for there services.
3. State measurable objectives that will be used to determine the impact/effectiveness of the project.

4. Indicate how each project objective will be evaluated.

The evaluation of the project will be based on the usage of the equipment during the course of the academic year. The newly purchased equipment will replace the older, used equipment.

5. If funded, which NSTEP http://www.nsula.edu/nstep/NSTEP.pdf objective(s) will this funding of this project advance? How will funding of the project advance the University and College/unit technology plan?

The described project will advance the NSTEP object # 3 - "upgrade laboratories with modern technology." These project will ensure that our students are currently using equipment that is fully functioning and works properly. We are trying to ensure that our students are using equipment that they will use once they graduate from NSU and enter the work place. Our students should experience modern instrumentation and equipment when performing their laboratory experiments.

6. Provide a justification for funding of this project. Estimate the number of student that will be served per academic year and in what ways. Please indicate also any unique needs of the target group.

In this proposal, we are looking to upgrade a few pieces of larger equipment in the chemistry laboratory. We will be looking to purchase some analytical balances and magnetic stir/hot plates where each lab group will use their own piece of equipment. Our chemistry labs can hold a maximum of twenty students per section and we offer around seven sections of assorted chemistry labs per semester. This need will be used by 300 students per academic year. Every student must weigh their chemical for each experiment and in some cases they need to stir or heat up their chemical reactions. It is of upmost importance that these requirements are fulfilled because our students need modern and properly functioning equipment.

7. List those individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project.

The major contributor to the project is myself, Dr. Greg A. Hogan. As a chemist I understand in order to maintain a high level of excellence in the laboratory we must have full functioning equipment that works properly.

8. Describe any personnel (technical or otherwise) required to support the project/initiative.

All purchased equipment will be individual pieces that will not require any support after the initial installation of such equipment.

9. Provide a schedule for implementation and evaluation.

Since we are discussing the upgrade of current instruments in a chemistry lab, the typical schedule for evaluation will be after each lab session and at the end of each semester to ensure the equipment is still functioning properly.

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years.

The expected life of the equipment that will be purchased should contain a life span of approximately ten – fifteen years depending the individuals for whom will be keeping up with the laboratory equipment and chemicals. The equipment will be expected to be used after semester for those ten or so years because the only deterrent will be if any chemical spills occur on the instruments. These items that will be purchased will not require and upgrades or software installation.

11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received through a Student Technology Fee.
If you are requesting equipment that will be either/or checkout to students or moved within the department, you must provide a checkout/loan policy.

All purchased equipment from this grant will be stored in two locations that will be locked by key and an electronic FOB. The individuals that could gain access to such equipment must have either the key or FOB that opens the laboratory door. All items in a chemical laboratory are always treated with high security to ensure the safety of the instructors, visitors and our students.

12. Does the department that is requesting equipment receive lab fees? If so, please provide a justification for requesting funds from tech fee funds over using lab fees from your department.

Yes, the Department of Biological and Physical Science do implement a laboratory fee with their associated labs. In the field of chemistry, our labs require more than you average laboratory course. In chemical experiments, we require the use of chemicals, specific and common glassware, and other pieces of equipment such as analytical balances, melt-temps, and magnetic stir/hot plates. The typical laboratory fee will cover the purchase of chemicals, solvents and the variety of glassware that is required but the "larger" equipment is usually too expensive and the laboratory fees could not cover the total cost.

13. Attach a detailed budget.

All items will be purchased through VWR, which is state contracted through NSU. Please see attached quoted items that have been highlight and the attached budget for such purchases.

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14. Attach two (2) letters of support for the project from the following individuals: the requesting department's Dean, the appropriate Vice President or for student request, the SGA President from the requesting campus.

Budget for Student Technology Grant Proposal

Prepared by Greg A. Hogan, Ph.D.

Items to be Purchased	Price per Unit	Units required	Total Cost
Analytical Balance	1617.00	5	8085.00
Hot Plate Stirrers	336.03	12	4032.36
Mel-Temp Apparatuses	1325.45	6	7952.70
		Gross total :	20070.06

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Pioneer™ Series Analytical and Precision Balances, Ohaus®

Supplier: Ohaus

Pioneer™ precision and analytical balances are ideal for routine weighing in laboratory, industrial, and educational applications. Designed to provide uncomplicated performance, balances are equipped with selectable environmental settings to ensure that procedures are not interrupted when working in harsh environmental conditions. Balances can be adjusted to compensate for vibrations and other disturbances, or can be adjusted to perform in slow filling applications where sensitivity is a must.

An upfront level indicator eliminates the need to refer to hidden or inconvenient indicators during the leveling process. Balances offer multiple application modes, such as basic weighing, parts counting, and percent weighing, as well as up to 19 weighing units including one custom unit. A built-in weigh-below hook allows users to suspend items below the balance to calculate density/specific gravity. An integral security bracket enables balances to be secured to a workstation to prevent movement or theft.

Additional standard features include user selectable span calibration points, software reset menu, stability indicator, auto tare, user selectable communications settings and printing options, a stainless steel weighing platform, RS232 interface, and AC adapter.

Ordering Information: Balances **97004-582**, **-584**, **-586**, **-588**, and **-590** are supplied with a 19.5Hcm ($7^{11}/_{16}$") draftshield with stainless steel floor, all glass panels, and three sliding doors. All panels are easy to remove, clean, and replace.

Services: VWRCATALYST™ offers validation services including IQ, OQ, and PQ protocol development and execution, as well as asset management and calibration services (US only); call 888-793-2300 for more details.

ORDER

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Analytical Balance	110 g	19.6W x 28.7H x 32D cm ($7^{23}/_{32}$ x $11^{5}/_{16}$ x $12^{1}/_{2}$")	0.2 mg	9 cm ($3^{1}/_{2}$") dia.	0.1 mg	0.1 mg	6.9 kg (15.2 lbs.)	80251551	97004-584	Each	Direct from Supplier	$1,455.30	0
Analytical Balance	65 g	19.6W x 28.7H x 32D cm ($7^{23}/_{32}$ x $11^{5}/_{16}$ x $12^{1}/_{2}$")	0.2 mg	9 cm ($3^{1}/_{2}$") dia.	0.1 mg	0.1 mg	6.9 kg (15.2 lbs.)	80251550	97004-582	Each	In Stock	$1,212.75	0
Analytical Balance	210 g	19.6W x 28.7H x 32D cm ($7^{23}/_{32}$ x $11^{5}/_{16}$ x $12^{1}/_{2}$")	0.3 mg	9 cm ($3^{1}/_{2}$") dia.	0.1 mg	0.1 mg	6.9 kg (15.2 lbs.)	80251552	97004-586	Each	Direct from Supplier	$1,617.00	0
Precision Balance	1500 g	19.6W x 9.2H x 32D cm ($7^{23}/_{32}$ x $3^{5}/_{8}$ x $12^{1}/_{2}$)	20 mg	18 cm ($7^{3}/_{32}$") dia.	0.01 g	10 mg	5.4 kg (12 lbs.)	80251572	97004-594	Each	Direct from Supplier	$766.15	0
Precision Balance	310 g	19.6W x 28.7H x 32D cm ($7^{23}/_{32}$ x $11^{5}/_{16}$ x $12^{1}/_{2}$")	2 mg	12 cm ($4^{3}/_{4}$") dia.	0.001 g	1 mg	6.9 kg (15.2 lbs.)	80251621	97004-590	Each	In Stock	$850.85	0
Precision Balance	4100 g	19.6W x 9.2H x 32D cm ($7^{23}/_{32}$ x $3^{5}/_{8}$ x $12^{1}/_{2}$)	100 mg	18 cm ($7^{3}/_{32}$") dia	0.1 g	100 mg	5.4 kg (12 lbs.)	80251575	97004-598	Each	Direct from Supplier	$710.71	0
Precision Balance	150 g	19.6W x 28.7H x 32D cm ($7^{23}/_{32}$ x $11^{5}/_{16}$ x $12^{1}/_{2}$")	2 mg	12 cm ($4^{3}/_{4}$") dia.	0.001 g	1 mg	6.9 kg (15.2 lbs.)	80251562	97004-588	Each	In Stock	$727.65	0
Precision Balance	3100 g	19.6W x 9.2H x 32D cm ($7^{23}/_{32}$ x $3^{5}/_{8}$ x $12^{1}/_{2}$)	20 mg	18 cm ($7^{3}/_{32}$") dia.	0.01 g	10 mg	5.4 kg (12 lbs.)	80251623	97004-596	Each	In Stock	$931.70	0
Precision Balance	510 g	19.6W x 9.2H x 32D cm ($7^{23}/_{32}$ x $3^{5}/_{8}$ x $12^{1}/_{2}$)	20 mg	18 cm ($7^{3}/_{32}$") dia.	0.01 g	10 mg	5.4 kg (12 lbs.)	80251571	97004-592	Each	In Stock	$654.50	0

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SPECIFICATIONS

Operating Temperature	-10 to 40°C (14 to 104°F)
Stabilization Time	3 Seconds
Taring Time	1 Second

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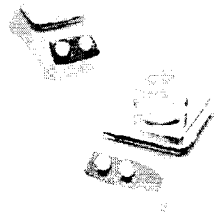
VWR® Standard Hot Plate Stirrers

Supplier: VWR International



- Excellent Temperature Uniformity
- Enhanced Electronic Features
- Cool Touch, Chemical-Resistant Housing
- Now with Best in Class, Exclusive 5-Year Warranty

Standard hot plate stirrers are designed for general-purpose laboratory use. These microprocessor controlled, analog units are equipped with easy-to-use, dial-adjustment controls. Enhanced electronics and a robust heater regulate stirring and heating functions. A ramping feature gradually increases speed to prevent splashing, improve magnetic coupling, and provide excellent low end control. Speed is precisely controlled, with consistent stirring at all speeds powered by a dependable, continuous duty motor. A low-profile design requires minimal bench space and permits use within a fume hood. The spill-resistant housing channels fluids away from internal components in the event of a spill.

Hot plate stirrers are available with ceramic or aluminum top plates. Ceramic top plates feature an easy-to-clean, chemical-resistant, reflective white surface. Aluminum top plates will not crack or chip, and offer a more even heating surface. The unit's housing is constructed of a heat-resistant polymer that remains cool to the touch, and is chemical-resistant. For additional safety, a hot symbol warning light is illuminated while the unit is in use, and remains lit until the top plate is sufficiently cooled.

Ordering Information: Units are supplied with a 234cm (92") detachable, 3-wire cord and plug. A 3.8cm ($1^1/_2$") PTFE coated stir bar is also included.The optional support rod and clamp kit includes a 45.7cm (18") long stainless steel support rod, a thermometer/temperature probe extension clamp, a three-prong dual-adjust swivel clamp, and a hook connector. 230V, 50/60Hz models are also available; contact your VWR sales representative for more information.

TUV listed. CE marked.

ORDER

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Electrical	Overall Dimensions	Top Plate Dimensions	Maximum Capacity	Top Plate Material	Shipping Weight	Catalog Number	Unit	Availability	Price	Quantity
120V, 400W, 3.3A	16.8W x 27.4L x 10.9H cm ($6^5/_8$ x $10^{25}/_{32}$ x $4^5/_{16}$")	10.2 x 10.2 cm (4 x 4")	600 mL	Aluminum	2.8 kg (6.2 lbs.)	97042-598	Each	In Stock	$352.82	0
120V, 400W, 3.3A	16.8W x 27.4L x 10.9H cm ($6^5/_8$ x $10^{25}/_{32}$ x $4^5/_{16}$")	10.2 x 10.2 cm (4 x 4")	600 mL	Ceramic	2.8 kg (6.2 lbs.)	97042-594	Each	In Stock	$336.03	0
120V, 1000W, 8.3A	25.1W x 37.6L x 10.9H cm ($9^{29}/_{32}$ x $14^{13}/_{16}$ x $4^5/_{16}$")	17.8 x 17.8 cm (7 x 7")	2500 mL	Aluminum	4.8 kg (10.5 lbs.)	97042-638	Each	In Stock	$431.43	0
120V, 1000W, 8.3A	25.1W x 37.6L x 10.9H cm ($9^{29}/_{32}$ x $14^{13}/_{16}$ x $4^5/_{16}$")	17.8 x 17.8 cm (7 x 7")	2500 mL	Ceramic	4.8 kg (10.5 lbs.)	97042-634	Each	In Stock	$421.81	0
120V, 1550W, 12.9A	33W x 45.5L x 10.9H cm (13 x $17^{15}/_{16}$ x $4^5/_{16}$")	25.4 x 25.4 cm (10 x 10")	6000 mL	Aluminum	7.2 kg (15.9 lbs.)	97042-678	Each	In Stock	$564.92	0
120V, 1550W, 12.9A	33W x 45.5L x 10.9H cm (13 x $17^{15}/_{16}$ x $4^5/_{16}$")	25.4 x 25.4 cm (10 x 10")	6000 mL	Ceramic	7.2 kg (15.9 lbs.)	97042-674	Each	In Stock	$547.42	0

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SPECIFICATIONS

Operating conditions	5 to 40°C (41 to 104°F)
Speed Range	60 to 1600 rpm
Speed stability	±2%
Temperature Range	5° above ambient to 500°C (932°F) for ceramic top, 5° above ambient to 400°C (752°F) for aluminum top
Temperature Stability	±3% for ceramic top, ±2% for aluminum top

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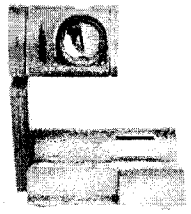
MEL-TEMP® Melting Point Apparatuses, Techne Inc.

Supplier: Techne



The new and improved 1101D and 1102D Mel-Temp® Digital Melting Point Apparatuses offers a quick and easy way to measure the melting points of samples at a budget price. They are ideal for multiple users, being ergonomically designed to ensure comfortable viewing for everyone, with a height- adjustable extension arm and a viewing head that may be rotated to suit each user. As a visual aid, the viewing head holds a viewing magnifier that offers up to 8X magnification, and the unit itself has a large LCD display to reduce eye strain. As a further convenience, the extension arm is completely collapsible and can be neatly folded away into the unit, so that the unit can be stored flat to save space.

Performance features include: membrane keypad with simple menus for intuitive use, push button controls are conveniently located to ensure that temperatures can be recorded without looking away from sample, digital microprocessor with 1°C resolution provides fast warm-up and accurate temperature control and samples in 3 capillary tubes may be viewed simultaneously

Safety and convenience features include: operates without a mercury thermometer, audible beeps indicate that the oven temperature is stable and ready for sample, adjustable object lens for sharp focus, safety eye piece reduces glare and protects the eyes from the hot zone and integral light and wide angle 8x magnifier enhance sample observation, so that all 3 samples can be viewed without eye strain

Ordering Information: Features tube guide removal for cleaning and use of cold finger, 32-bit processor, 4x1 melt memory capacity and 13-key membrane keypad.

CE listed

ORDER

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MEL-TEMP® Digital Melting Point Apparatus	115V	20.3W x 35.6D x 7.6H cm (8 x 14 x 3")	1101D	*89217-408*	Each	In Stock	$1,325.45

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Generate Barcodes Barcode Label Format: Avery L7162

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SPECIFICATIONS

Weight (kg)	2.5 Kg (5.5 lbs)

NORTHWESTERN STATE
College of Arts, Letters, Graduate Studies and Research
Office of the Dean

The Graduate School
(318) 357-5851

Louisiana Scholars' College
318-357-4577

School of Creative and Performing Arts
318-357-4522

Department of Criminal Justice, History and Social Sciences
318-357-6967

Department of Social Work
318-357-5493

Department of Language and Communication
318-357-6272

Department of Psychology
318-357-6594

To whom it may concern:

It is with pleasure that I write in support of a grant submitted by Dr. Greg A. Hogan to purchase new laboratory equipment for the general and organic chemistry laboratories in Fournet Hall. The current equipment in Fournet Hall is currently damaged or not properly functioning at the current moment. The chemistry laboratories service a large quantity of our students and benefits a great deal of majors including Biology, Physical Science, Mathematics, Health and Human Performance, and Nursing. Given the high cost of purchasing new equipment and instrument, these grants are a great opportunity to purchase these instruments. I assure you that the equipment will be thoroughly used and benefit a large quantity of our students for many years.

Sincerely,

Steven G. Horton

Steven G. Horton, PhD.
Vice Provost and Dean
College of Arts, Letters and Graduate School

DEPARTMENT OF BIOLOGICAL AND PHYSICAL SCIENCES
COLLEGE OF SCIENCE, TECHNOLOGY, AND BUSINESS
Phone (318) 357-5323, Fax (318) 357-4518, Email: Bio_Sci@nsula.edu, URL: biology.nsula.edu

December 1, 2014

Ms. Jennifer Long
Student Technology Fee Office
Watson Library

Dear Committee Members,

It is with pleasure that I write in support of a grant submitted by Dr. Greg Hogan to purchase stirring hotplates and melting temperature apparatus for general and organic chemistry laboratories in Fournet Hall.

The courses in which the requested instruments will be used (CHEM1031, 1041, 3011 and 3021) serve a large number of students in a variety of majors, Biology, Physical Science, Mathematics, and Health and Human Performance (Physical and Occupational Therapy concentrations). We currently average 9 sections of CHEM1031 per year with an cumulative enrollment of over 200 students. CHEM1041 averages 6 sections per year with a cumulative enrollment of approximately 125 students. Given the high cost of purchasing new instruments and a freeze on lab fees adjustments that has bee in effect for over ten years, grants are the only viable source to fund these purchases. I assure you that the equipment will see extensive use and benefit a very large number of students for many years to come.

Thank you.

Zafer Hatahet, Ph.D.
Professor and Department Head