Sustainability Grant – Application (2011-12)

Applicant(s)  Susan Slater-Tanner

Signature of Applicant(s) ______________________________________________ Date 12/5/2011

Name or Title of Proposal  ECO Art: Recycled Paper for Sculptural Paper Making

Brief overview / description of proposal:

“Paper is a part of everyday life and with its physical properties and conveniences satisfies a human need not yet filled solely by the digital world. In fact, the use of office paper has increased rather than decreased over the last several decades as a result of the “information revolution.”


- As our copy room proudly displays the sign “Over 542,000 copies are produced every month” one is amazed at the productivity of our one room copy shop! Even more amazing is the consequence of that statistic—where do all those copies go post consumer/student/faculty/staff? One may wonder how much can a few tests and hand-outs really amount to? What can we actually do to re-use and reduce the ocean of paper filling our waste baskets daily?
- In conjunction with “Sculpture for a New Century” a sculptural exhibition scheduled for our Newburgh Campus from June 5 through September 30, 2012; The Arts and Communication Department will offer a one credit special topic course Sculptural Paper and Papermaking. (please see attached) While we could easily purchase prepared paper pulp from a number of metro area studios-- recycling our own waste paper not only speaks to the Sustainability Committee’s “practice of undertaking measures that can be easily and quickly enacted”, it also engages students directly in the discussion of awareness and responsibility.
Brief Description of expected outcomes-

- By harvesting on-site shredded waste paper, this specific class would be made aware of the recycled paper making process (see attached\(^1\)) as well as the positive environmental impact of class.
- Briefly; by recycling just one pound of shredded office paper the class could claim a Net Energy gain of 15,000 BTUs per lb. The class would save 11,000 BTUs of purchased energy per pound and cut GHG by 2.7485 lbs of CO\(_2\) per pound of recycled office paper. 9.9245 gallons of wastewater would be saved per pound as well as .886 pounds of Solid Waste per pound of recycled office paper.
- Further savings regarding typical transportation emissions, carton packaging generally used on fine art quality paper would be eliminated. These numbers may represent a modest savings in actual dollars, cents and overall sustainability; but they represent the beginning of a new dialogue in how the Arts and Communication Department could participate in the campus wide discussion of Sustainability and Curriculum Inventory. This special topics course could offer a productive starting point that can be expanded into more routine offering of “eco-friendly” art classes fusing ecological responsibility with artistic creativity.

Amount requested for grant: $500.00

Amount necessary to implement proposal (if proposal is part of a larger collaborative project requiring or seeking funding from multiple sources): No multiple sources at this time

I have reviewed this proposal and possible project implementation with my supervisor: Yes

Proposals that address at least one of the Sustainability Committee’s goals for the current academic year will be weighed more heavily but all proposals will be considered.

\(^1\) Environmental impact estimates were made using the Environmental Paper Network Paper Calculator. For more information visit www.papercalculator.org.
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Please provide the following supporting documentation (proposal evaluation rubric includes these components)

- Provide a detailed explanation of your proposal. Include details on how the proposal meets one (or more) of the Sustainability goals for the academic year, and outline the projected impact of your proposal.

The objective of this request is to supplement art studio equipment so that students can afford to take Sculptural Paper and Paper Making in the summer of 2012. (See proposed syllabus) While recycled waste paper from SUNY Orange’s offices can be cost effectively collected by staff, thus reducing our solid waste (SG goal #4) the start up purchase cost of necessary equipment may discourage students from registering for the course. The requested materials and equipment would make it possible to explore how logistically effective re-cycled fine art paper (suitable for sculptural projects) really is. This course offering is scheduled to be concurrent with “Sculpture for a New Century”. The following remarks describe the exhibition: This outdoor exhibit will open at the College’s Newburgh (N.Y.) campus June 5, 2012, and be on display through Sept. 30, 2012. The expansive Hudson Valley in New York State is renowned for its natural beauty, idyllic landscapes and scenic topography. The region boasts an abundant tradition of innovation in art, design, creative expression and landscape architecture. Generations of artists have captured the Valley’s grandeur in all forms of media. SUNY Orange seeks to unite the Hudson Valley’s artistic heritage and inspirational beauty with the College’s educational mission in “Sculpture for a New Century,” a juried outdoor sculpture exhibition. The exhibit will feature works inspired by the natural landscapes of the Hudson Valley, with the College’s Newburgh campus and majestic Hudson River adding a charming and picturesque context. “Sculpture for a New Century” will promote in students and community members alike a deeper appreciation for sculpture and a richer insight into the creative process as visitors discover art’s ability to stimulate emotion and provoke thought.

By funding this project our students and faculty will be able to directly meet Sustainability Grant (SG) goal #3 by including the Arts and Communication department in strategic discussions on how to increase sustainability side by side with curriculum as well as SG goal #4, by expanding the college’s effort to reduce solid waste.

- Provide an explanation of the impact of your proposal. Include an explanation of whether and to what extent, the proposal will have a direct, measureable impact. Highlight to what extent the impact is related to the Sustainability goals for the Academic year.

As to SG #3 which seeks to infuse sustainability into curriculum, our students would directly: observe, participate and evaluate how much GHG, solid waste, Net Energy BTU, purchased energy and gallons of waste water was saved in recycling one pound of office paper. These statistics would also provide a base line against which all future “ECO-Art” classes could compare and contrast their data from each subsequent semester, since it is the hope that this type of curriculum could become a permanent part of our department offerings. Amounts of collected waste paper, the resulting reduction in solid waste, Net Energy saved, saved BTUs, GHG, and waste water can be calculated based on the processed poundage.
Discuss how you intend to track, report and communicate progress and success.

Data and statistics and will be tracked by:

1. Weighing the amount of paper that is collected and recycled.
2. Counting number of sheets of fine art quality paper produced.
3. Saved resources using previously stated categories (BTUs, GHG, waste water, etc.) will be calculated at the end of the 5 week course and presented at an exhibition of Sculptural Paper at the Harriman Student Gallery in the Fall of 2012 as well as published on the Sustainability page of SUNY Orange Web Site and on Faculty/Staff and Student Grape Vine.

Include a timeline of action steps, activities, etc. associated with the proposal.

1. Verify enrollment
2. Purchase equipment
3. Conduct class, collect recycled paper
4. Organize, schedule and advertise exhibition in Harriman Student Gallery
5. Install Show
6. Opening reception concurrent with data being released on Grapevine

Estimate the hard or soft cost savings to the college. (Hard costs = savings in dollars/ energy; Soft costs = efficiency, satisfaction, productivity, etc.)

Hard cost savings are difficult to estimate since they are directly tied to enrollment numbers; however if one estimates enrollment at 12 each student would safely process 5 lbs of paper (probably more). Consequently 60 pounds of paper could be the base line for calculations.

1. Net Energy savings = 60 lbs x 15,000 per lb = 900,000 Net energy savings
2. Purchased Energy = 60 lbs x 11,000 per lb = 66,000 savings
3. SO2.= 60 x .013 per lb= .78 savings
4. GHG= 60x 2.7485 per lb.=164.91 GHG saved
5. Waste water saved = 60 x 9.9245 gallons per lb= 595.47 gallons saved
6. Solid waste= 60 x .886 per lb= 53.16 lbs of solid waste saved

Another hard cost associated with this course is the alternative of students having to purchase sheets of handmade paper (ranging from 12.00-16.00 per sheet see http://maplestreetpaper.com/botanical-papers/ ). Each student would need at least 10 sheets of paper to complete required assignments. Therefore paper material costs could run from $1440.00 to $1920.00 per class.

Soft savings are harder to calculate; what is the price of student sustainability awareness? Could this project ignite a trend in ECO-Art classes offered here at SUNY Orange? Fund this project and we will learn together what is possible!
• Explain how the proposal will increase awareness of sustainability / sustainable responsibility.

Students will directly, by participating in the practical aspects of recycling paper come to understand the outcomes. Students and faculty alike will be able to collect and calculate and present empirical evidence to the campus community at large though the SUNY Orange website and a well publicized art exhibition at Harriman Student Gallery.

• Explain how the project demonstrates a capacity for reduction of Greenhouse Gas Emissions (GHGE)
  o Include an explanation of the quantification of the GHGE reduction.
    • Net Energy savings = 60 lbs x 15,000 per lb = 900,000 Net energy savings
    • Purchased Energy = 60 lbs x 11,000 per lb = 66,000 savings
    • SO2. = 60 x .013 per lb = .78 savings
    • GHG = 60 x 2.7485 per lb = 164.91 GHG saved
    • Waste water saved = 60 x 9.9245 gallons per lb = 595.47 gallons saved
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• Describe the extent of collaboration and cooperation across constituencies / groups (include the extent of buy-in and approvals that have been sought and obtained regarding the proposal).
  ▪ Collaborate on pick up schedule for maintenance
  ▪ Discuss alternatives and arrange for designated storage of shredded paper
  ▪ Faculty and students calculate poundage
  ▪ Document process on video
  ▪ Students process paper- shredded paper returns to pulp, screened, dried
  ▪ Sheets are dried
  ▪ Number of sheets are calculated
  ▪ Chart data
  ▪ Video and data shared with Institutional Advancement
• Supply and explain project budget.

Equipment needed for recycled paper making

$150.00

• (5) Black & Decker BL10450HB Crush Master 10-Speed Blender with 42-Ounce Glass Jar, $29.99 (amazon)

52.10

• (4) Sterilite 66-Quart See-Through Storage Box with Latching Lid, Set of 4 $52.10 (amazon)

76.50

• (5) Coleman Cable 02308 16/3 Vinyl Outdoor Extension Cord, Orange, 15.30 ea.

57.80

• (10) 20” x 24” Canvas stretchers (complete frame) @5.78 each (amazon)

62.99

• roll of 36” Aluminum Window Screen Mesh (100 ft roll) (amazon)

43.50

• Product Number: 9711901 Arnold Grummer’s Couch Sheets for Papermaking 9-1/4" x 11-3/4" (see http://www.enasco.com/product/9711901)

21.00

• (2) Crystal Skirt/Slack Hangers (Set of 12) or recycled hangers

36.11

• Miscellaneous supplies

500.00

(see http://gomakesomething.com/ht/papermaking/papermaking/)