Student Sustainability Council Meeting Minutes April 18th, 2018

Members Present:

| Name | P/A | Name | P/A | Name | P/A |
|------------------------------|-----|-------------------------|-----|----------------|-----|
| Zoe Gabrielson | Р | Julianna Dantzer | Р | Megan Van Son | Е |
| Nachie Braga | А | Mitch Mullins | Р | Carson Harral | Е |
| Cassie Odom | Р | Jared Miniard | Р | Cameron Luker | Р |
| Sam Beavin | Ρ | Viktor Halmos | Р | Isabel Jenkins | Р |
| Braydi McPherson-Hathaway | Р | Ryan Lark | Е | | А |
| Rachel Kreppert | А | Maya Gershtenson | Е | Leslie Potts | А |
| Gabriel Smith | Р | Claire Crosby | А | Shane Tedder | Р |
| Lauren Thomas | Р | Abby Shelton | Р | Celia Ritter | Ρ |
| Rachel Cook | Р | William Varney | Р | Joel Huether | Р |
| Sophie Beavin | Р | Maya Collings-Patterson | Р | Cameron Baller | Р |
| Amanda Williams | Р | Maria Sanchez | Р | Evan Bartley | Р |

- 1) Beginning of Meeting
 - a) Did not Happen Reading of the Preamble and Introductions
- 2) Proposal Presentations
 - a) [7:07pm] Proposal #1 (Stream Restoration) Presentation Begins
 - b) [7:15pm] Proposal #1 Presentation Ends and Q&A Begins
 - i) Are we the first funding organization you've come to for funding?

- (1) Yes, as where we go for funding next depends upon the result of our proposal with your organization
- ii) What is your long term plan for maintaining this project?
 - (1) Generating more volunteering opportunities for maintenance is a goal of what is desired, and the use of Funkhouser Endowment.
- c) [7:22pm] Proposal #1 Q&A Ends
- d) [7:22pm] Proposal #2 (Otter Research) Presentation Begins
- e) [7:28pm] Proposal #2 Presentation Ends and Q&A Begins
 - i) How would you complete this project if we didn't fund your proposal?
 - (1) It would all fall on to me personally, and would be very difficult collect and analyze enough samples to arrive at a conclusion on time.
 - ii) What would the intern selection process look like?
 - (1) Application based, all undergrads welcome, and would then
 - be looking at their experiences and goals.
- f) [7:30pm] Proposal #2 Q&A Ends
- g) [7:30pm] Proposal #3 (Farm Bot) Presentation Begins
- h) [7:35pm] Proposal #3 Presentation Ends and Q&A Begins
- i) [7:35pm] Proposal #3 Q&A Ends
- j) [735pm] Proposal #4 (Sustainable Manufacturing) Presentation Begins
- k) [7:40pm] Proposal #4 Presentation Ends and Q&A Begins
- I) [7:42pm] Proposal #4 Q&A Ends

- m) [7:42pm] Proposal #5 (Catalyst) Presentation Begins
- n) [7:48pm] Proposal #5 Presentation Ends and Q&A Begins
- o) [7:50pm] Proposal #5 Q&A Ends
- p) [7:52pm] Proposal #6 (Architecture Study Abroad) Presentation Begins
- q) [7:59pm] Proposal #6 Presentation Ends and Q&A Begins
- r) [8:02pm] Proposal #6 Q&A Ends
- 3) Proposal Discussions
 - a) [8:10pm] Financial Update by Shane
 - b) [8:11pm] Discussion of Proposal #1 (Stream Restoration) Begins
 - c) [8:19pm] Motion to Extend (Motion by [Zoe], 2nd [Lauren])
 - d) [8:20pm] Motion to Amend Proposal to fund \$8,800 contingent upon finding additional sources of funding, will not exclude seeking funds from the 2018-2019 SSC (Motion by [Mitch], 2nd [Will]) - Passed
 - e) [8:20pm] Discussion of Proposal #1 Ends
 - f) [8:20pm] Motion to vote on Proposal #1 (Motion by [Lauren], 2nd [Maya])

VOTE RESULTS - PASSED - Yes [18] No [2] Abstain [0]

- g) [8:23pm] Discussion of Proposal #2 (Otter research) Begins
- h) [8:32pm] Motion to Extend (Motion by [Rachel], 2nd by [Zoe])
- i) [8:45pm] Motion to Amend to fund Internships and Intern Housing and have the proposer seek additional funding for travel (Motion by [Lauren], 2nd [Will])
- j) [8:45pm] Discussion of Proposal #2 Ends

k) [8:45pm] - Motion to vote on Proposal #2 (Motion by [Maya], 2nd [Cassie])

VOTE RESULTS - **PASSED** - Yes [18] No [2] Abstain [0]

- I) [8:36pm] Discussion of Proposal #3 (Farm Bot) Begins
- m) [8:42pm] Discussion of Proposal #3 Ends
- n) [8:42pm] Motion to vote on Proposal #3 (Motion by [Gabe], 2nd [Mitch])

VOTE RESULTS - FAILED - Yes [1] No [19] Abstain [0]

- o) [8:46pm] Discussion of Proposal #4 (Sustainable Manufacturing) Begins
- p) [8:47pm] Discussion of Proposal #4 Ends
- q) [8:47pm] Motion to vote on Proposal #4 (Motion by [Will], 2nd [Viktor])

VOTE RESULTS - PASSED - Yes [20] No [0] Abstain [0]

- r) [8:48pm] Discussion of Proposal #7 (GEN 100) Begins
- s) [8:50pm] Discussion of Proposal #7 Ends
- t) [8:50pm] Motion to vote on Proposal #7 (Motion by [Will], 2nd [Rachel])

VOTE RESULTS - PASSED - Yes [20] No [0] Abstain [0]

- u) [8:51pm] Discussion of Proposal #5 (Catalyst) Begins
- v) [8:53pm] Discussion of Proposal #5 Ends
- w) [8:53pm] Motion to vote on Proposal #5 (Motion by [Gabe], 2nd [Lauren])
 VOTE RESULTS PASSED Yes [20] No [0] Abstain [0]
- x) [8:53pm] Discussion of Proposal #6 (Architecture Study Abroad) Begins
- y) [8:57pm] Motion to Amend to Funding Plan A (Motion by [Lauren], 2nd

[Juliana]) - Passed

z) [8:58pm] - Discussion of Proposal #6 Ends

aa)[8:58pm] - Motion to vote on Proposal #6 (Motion by [Mitch], 2nd [Sophie])

VOTE RESULTS - PASSED - Yes [20] No [0] Abstain [0]

bb)[8:59pm] - Discussion of Scope Change #1 (Fall Retreat)

cc) [8:59pm] - Motion to vote on Scope Change #1 (Motion by [Gabe], 2nd [Will])

VOTE RESULTS - PASSED - Yes [20] No [0] Abstain [0]
dd)[9:00pm] - Discussion of Scope Change #2 (Sustainability Fellowships)
ee)[9:00pm] - Motion to vote on Scope Change #2 (Motion by [Gabe], 2nd
[Juliana])

VOTE RESULTS - PASSED - Yes [20] No [0] Abstain [0]
ff) [9:01pm] - Discussion of Scope Change #3 (Sustainability Fellowship)
gg)[9:02pm] - Motion to vote on Scope Change #3 (Motion by [Mitch], 2nd [Maya])

VOTE RESULTS -PASSED -Yes [19]No [0]Abstain [1]

hh)[9:06pm] - Discussion of Extension Request #1 (Stream Restoration)

ii) [9:06pm] - Motion to vote on Extension Request #1 (Motion by [Amanda], 2nd [Will])

VOTE RESULTS - PASSED - Yes [20] No [0] Abstain [0]

- 4) End of Meeting
 - a) [9:07pm] Officer Elections
 - b) [9:38pm] Meeting Dismissed
- 5) Voting Report & Proposals from Meeting

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Philip Crowley
- 2. Email: pcrowley@uky.edu
- 3. UK Affiliation: Professor of Biology and Director, Ecological Research and Education Center
- 4. Proposed Project Title: Stream Restoration and Student Engagement at the EREC Field Station Near the Campus
- If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): Ecological Research and Education Center, Department of Biology, and UKPPD
- 6. Total Amount Requested from the Council: \$ 40,796
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes
- 8. Please mark the primary and secondary focus areas of your project with a **1** and **2**, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water: 1

Energy Conservation:

• Renewable Energy/

- Climate Change:
- Local Environment: 2 (tie)
- Behavioral Change:
- Species Diversity/Conservation: 2 (tie)
- Other (Please Describe):
- 9. Please name any other project leaders:

| Name: Philip Crowley | |
|--|--|
| Title & Department: Professor of Biology and Director, Ecological Research and Education Center | |
| Project Role: Project Leader | |
| Email: pcrowley@uky.edu | |
| | |
| Name: Carmen Agouridis | |
| Title & Department: Extension Associate Professor, Biosystems/Ag Engineering | |
| Project Role: Liaison between student designers and EcoGro contractor | |
| Email: carmen.agouridis@uky.edu | |
| Name: Steven Price | |
| Title & Department: Associate Professor, Forestry | |
| Project Role: Establishing salamander, crayfish, and other invertebrate populations in the stream | |
| Email: steven.price@uky.edu | |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.

We propose to restore a stream at UK's in-town field station, the Ecological Research and Education Center (EREC; on Russell Cave Road near the city's Northside Branch Library), to enhance student learning opportunities during and after the restoration. Each year, EREC accounts for about 4500 student-hours of ecology coursework and independent student research from UK and Transy undergraduates, and many hundreds of additional hours from graduate students in Biology, Forestry, and Entomology. Regular events bring many other university, high school, and middle school students, teachers, and community members to EREC. This stream restoration project will inform these existing students and visitors plus the additional students and community members specifically targeted here to the project and its implications.

Roads and building construction in recent years interrupted surface water drainage across the field station property and reduced the stream there to an intermittent trickle. Our goal is to restore the stream's form and function and re-establish a healthy riparian ecosystem. Water is lost from the stream in two main ways: evapotranspiration from the dense honeysuckle understory, and leakage from the degraded and honeysuckle-root-punctured stream bottom. These macropores produce a losing reach with flow a few feet below the substrate surface. Our project addresses these issues, first by eliminating the honeysuckle (cutting the trunks at ground level and applying concentrated glyphosate, a non-persistent herbicide; see the first EcoGro quote), and then by restoring and sealing the stream course (using a design developed by students in BAE 532, in collaboration with ecologically knowledgeable wetland restoration contractors; see the second EcoGro quote). A weir will be installed at the downstream end of the reach so that water flow can be monitored for class exercises and research projects. We will then re-establish a sustainable stream ecosystem by transplanting native species found nearby to the site, including the salamander Ambystoma barbouri and an array of invertebrates, notably the crayfish Orconectes spp, amphipods, isopods, snails, and zooplankton. We anticipate that the stream restoration will allow aquatic insects will quickly colonize along with streamside vegetation. See Figures 1 and 2 below.

The main goal of this project is to enhance student learning about sustainable stream restoration and riparian ecosystems. Students from several UK classes will observe the restoration process and then participate in monitoring, assessing, and generally utilizing the stream for instruction and research. These classes include ecology (BIO 325, BIO 325H and Transy's BIO 4144), entomology (ENT 300 and Transy's 2504), stream restoration (BAE 532/CE 542), hydrogeology (EES 385, 585), forestry (FOR 510, 530, 540), and independent research (e.g. BIO 395) (see support letters from some of the course instructors). A secondary goal is community engagement through school on-site exercises and guided visits by community groups. The Winburn area surrounding EREC is the most socio-economically disadvantaged section of Lexington (a recent LFUCG evaluation found 69% of the children there living in poverty!). EREC has established good working relationships with the community leadership and with the local schools, particularly Winburn Middle, Bryan Station High and Middle, and the STEAM Academy (see the support letter from the STEAM Principal). Kentucky River Watershed Watch already meets regularly at EREC; UK's Cooperative Extension can also connect with the project through the 4-H Teen Converence and the Kentucky Master Naturalist Program. We will initiate discussions with all of these on how they can best take advantage of this project if we are notified of funding. EREC has outstanding facilities for experimentation in artificial streams (a facility with four riffle-pool systems and a new NSF-funded 20-channel remote video stream system that is truly state of the art). Restoring the stream historically existed across the site complements those experimental facilities and can provide research organisms for experimentation. The proposed stream restoration is the first stage of a major wetland expansion at EREC, which already has 16 small ponds (3 x 6 m) and 3 large ponds (5 x 10 m). The field immediately adjacent to the stream restoration site will be proposed for wetland development through a \$300K LFUCG Stormwater Quality Projects Incentive Grant, to be submitted in July 2018, and the stream restoration will serve as a match (depending on the timing of funding) or will at least considerably strengthen the case for the larger project.

This project addresses all three pillars of sustainability. Its *environmental* contributions to natural drainage/ecosystem restoration and water retention within the Cane Run watershed should be clear. Its *social* impact will be felt through the educational focus (university, schools, and the general public) and through community engagement within an underserved area of the city. The *economic* impact is demonstrated through the ecosystem services provided by increased water retention within the aquifers of the watershed (retained surface water supplies groundwater a few hundred meters beyond the surface stream course)—and as part of the larger wetland water-retention plan to be facilitated by this proposed initial phase. The many students to be exposed to the stream restoration project will develop a greater appreciation for ecosystem services, and some of them will go on to careers where this concept will play an important role.

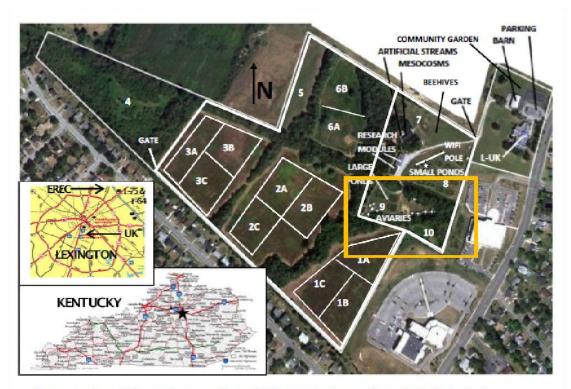


Figure 1. The Ecological Research and Education Center (EREC), including the UK/Lexmark (L-UK) building and its immediate surroundings (parking, barn, garden, lawn) and the Ecological Research Facility (remainder of the area bounded by white lines). Heavy white lines indicate fence. Main facilities and the ten research fields are indicated; the three successional fields each contain three subfields at different stages of a 3-year successional sequence. The white star in field 8 shows the location of the weather station. EREC is easily accessible across the Bluegrass and beyond via the north-south (I-75) and east-west (I-64) highways five minutes away from the field station by car. The orange rectangle shows the area of Figure 2.

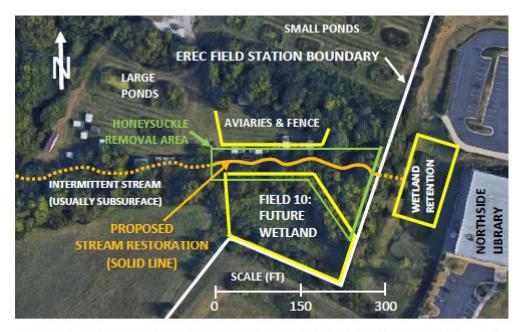


Figure 2. Enlarged view showing the proposed site of stream restoration near the field station boundary with the Lexington-Fayette Northside Branch Library. The library's retention pond collects run-off from roughly 50-100 acres to the east of EREC, and much of this flows through a culvert across the EREC boundary, following the original course of the stream to be restored. In this project, we propose clearing Amur honeysuckle adjacent to the stream and restoring the stream channel and ecosystem over the indicated length.

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

A closely related but more extensive project was proposed for the previous Sustainability Competition but not selected for funding. The current request from SSC is much more student-focused and takes a more sustainable approach to the stream restoration. Because the general approach and potential for interaction with stakeholders from the previous proposal are unchanged, the letters of support from the previous submission are included here as an attachment to avoid troubling busy people for new letters. (Most of them have already indicated their support for this revised project by e-mail.) Included are letters from some of the faculty members whose classes will take advantage of the project (Drs. Agouridis, Fryar, and Price); the head of the Water Resources Section of the Kentucky Geological Survey (Dr. Taylor), who will provide guidance and initiate collaboration with EREC through the project; the Director of NKU's Center for Environmental Restoration (Dr. Fennell), who will also provide guidance as we extend the proposed project into the larger wetland restoration on the site; personnel at the STEAM Academy (Dr. Michael Lauer and Principal Tina Stevenson), who indicate how the project will help them advance STEAM's commitment to the Next Generation Science Standards; support from leaders at the contracting firm EcoGro (Hanssen and Dawalt), which has successfully completed other wetland restoration work for UK and will undertake the current project; and a letter from the manager of Planning, Design, and Construction in UKPPD (Armstrong), expressing his approval of the project. Though we have no matching or in-kind support per se, the proposed project will itself

advance the next phase of wetland expansion at EREC through the \$300K LFUCG Stormwater Quality Projects Incentive Grant to be submitted in July 2018.

12. Please mark the primary target population of your project with a **1**.

- UK (general):
- Undergraduates: 1
- Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The intended audience for the proposed project is indicated in the above sections. Over 100 undergraduate students will learn about the project and take advantage of the opportunities it affords each year. We will link the project to the surrounding community through an event planned for project completion, through our interactions with the nearby schools, and through other community-related activities at EREC that will give us the opportunity to describe and show the restored stream.

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

As noted above, students are heavily involved in the project, from the current planning phase through construction and subsequent educational use. Students will be able to enhance their technical skills by monitoring and sampling the stream system and learning about the ecosystem services provided by riparian and other wetland ecosystems. They will also conduct independent research projects facilitated by the proposed stream restoration, culminating in presentations of their work.

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Project leader Crowley participated in an SSC-funded project two years ago to establish a Monarch butterfly way-station at EREC. This advanced the work of two graduate students (one in Biology and one in Economics) and involved quite a few volunteer undergraduates. The way-station is still in operation.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

Project Timeline:

May-June 2018—Honeysuckle removal

July-September 2018—Restoration of the stream channel and banks, with installation of the weir

September 2018—Initiating monitoring of stream flow

September-October 2018—Introduction of native crayfish and other invertebrates to the stream February-March 2019—Introduction of larval *Ambystoma barbouri* salamanders to the stream May-June 2019—Monitoring emergence of metamorphs from the stream

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

IACUC approval will be required when *A. barbouri* are introduced into the stream. At this point, our project does not strictly require approval from UK administration; nevertheless, we have sought and obtained approval by the head of Planning, Design, and Construction in UKPPD (see Armstrong letter), which oversees the maintenance of the EREC field station.

18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?

The Student Sustainability Council will be credited with providing support in all student and faculty research projects that use the restored riparian system or its organisms. All classes and visiting groups will be informed about the SSC's role in making the restoration possible. The project and the SSC's contribution will be prominently acknowledged on the EREC website and in EREC's semi-annual newsletters (*Ecolink*), and an article in *UKnow* will be suggested. The project leader would enthusiastically welcome the opportunity to discuss the project in a radio interview or other media.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

The budget is summarized in detail in the two attached quotes. 100% of the funding is requested from SSC. The quotes represent generous pricing by EcoGro, particularly the stream restoration. Their willingness to do the stream restoration for such a modest price relates to the strong possibility of their involvement in the stormwater grant project to be proposed in July.

| Description | \$ Total Cost | \$ Request from SSC | Source of remaining funds |
|---------------------|---------------|---------------------|---------------------------|
| Honeysuckle removal | \$8,800 | \$8,800 | N/A |
| Stream restoration | \$31,996 | \$31,996 | N/A |

20. Are you willing to accept a general reduction in your budget?

Yes

21. Are you willing to accept line item changes in your budget?

Yes

22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Attached are a file containing the letters of support from stakeholders and another file with the EcoGro quotes for the proposed work.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The 2017-2018 meeting schedule is on our website.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Gabriela A. Wolf-Gonzalez
- 2. Email: gawo224@g.uky.edu
- 3. UK Affiliation: Student
- 4. Proposed Project Title: Diet of a recently reintroduced river otter (Lontra canadensis) population in the upper Rio Grande River, New Mexico
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.):
- 6. Total Amount Requested from the Council: 7,000
- 7. Would you like to make a presentation to the Council before your proposal is reviewed?

I would love to present my research and my research needs to the council.

8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.

- Recycling:
- Transportation:
- Agriculture/Gardening:
- Water:
- Renewable Energy/

Energy Conservation:

- Climate Change:
- Local Environment: 2
- Behavioral Change:
- Species Diversity/Conservation: 1
- Other (Please Describe):

9. Please name any other project leaders:

| Name | Cox |
|--------------------|------------------------|
| Title & Department | it Professor |
| Project Role | sor |
| Email | <u>iky.edu</u> |
| | |
| Name | Springer |
| Title & Department | It Extension Professor |
| Project Role | sor |
| Email | inger@uky.edu |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

- 10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.
- From early colonization until the mid-20th century, many animals were overexploited. River otters were eliminated from much of their native range, and extirpated from 13 states. As the environmental movement emerged in the late 20th century several states began otter restoration projects, including New Mexico 2008. This project was discontinued in 2012 because of concerns of fish depredation.

- There is very little information regarding river otters in the southwestern United States, and none for river otters in New Mexico. Understanding otter diet is key to informing local fisheries managers, local anglers, and other recreationists about the ecological role of this aquatic carnivore.
- River otters are also native to Kentucky, where they were reintroduced in the 1980s. Because river otters are not dietary specialists, we can compare food habits of those in New Mexico with Kentucky.
- I plan on creating two undergraduate intern positions, presenting my research in a department seminar (Forestry and Natural Resources), introduction to wildlife biology (FOR 101) and Conservation biology (FOR 435), 4-H programs, as well as to local groups in New Mexico (I have been invited to talk to students in the conservation biology course at the University of New Mexico).
 - 11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

New Mexico Game and Fish: Providing research funding of \$18,000.

UNM Museum of Southwestern Biology: Providing research samples to create prey identification Key Amigos Bravos: Providing equipment and initial maps.

- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates:
 - Graduates:

- Community: 1
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

- 13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).
- I will present my research to at least two undergraduate classes at UK (FOR 101 and 435), lead a department seminar, and disseminate research findings at scientific meetings. I have already presented a poster at the Midwest Fish and Wildlife Conference and the Kentucky Chapter TWS meeting.
 - 14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?
- Using funds from this grant, I hope to create two undergraduate students to assist with research. These students will gain lab experience with the identification of scales, bones, and exoskeleton. They will also gain experience with data input and mapping using geographic information systems.
 - 15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Only my co-advisor, Dr. John Cox has a current student (Stratton Hatfield) that has received funding support from SSC.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

Winter '17: Hiring technicians, establish survey area, acquiring permits, and begin sample collections

| Spring '18: | Technicians will continue to survey, samples will be sent to KY for examination |
|----------------------------|---|
| Summer '18: | Field surveys, internship begins and intern will start to categorize remains. |
| Fall -Winter '18: | Field surveys and scat analysis; intern finish categorizing remains and create a presentation regarding their work; Initiate data analysis. |
| Winter '18- Spring '19: | Data analysis and thesis preparation |
| Spring '19: | Thesis defense |

- 17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.
- My research project has been approved and permits received from agencies in New Mexico, with research initiated January 2018. However, there is no current funding for field housing and undergraduate help, and is mostly used for travel.
 - 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?
- The SSC will be thanked during all presentations and credited as a funding source in the published thesis and peer-reviewed publications.
 - 19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | Cost | est from SSC | of remaining funds |
|--------------------------|------|--------------|-----------------------|
| for internships | | | ent source of funding |
| xpenses for research | | | ent source of funding |
| expenses for research | | | ent source of funding |
| neous equipment/expenses | | | ent source of funding |

- 20. Are you willing to accept a general reduction in your budget? Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The 2017-2018 meeting schedule is on our website.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Harrison Stranc
- 2. Email: Harrison.stranc@uky.edu
- 3. UK Affiliation: Farmbot.Wildcats
- 4. Proposed Project Title: Farmbot.Wildcats 1st Bot
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.):
- 6. Total Amount Requested from the Council: \$3,895
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes.
- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening: 1
 - Water:

Renewable Energy/

Energy Conservation:

- Climate Change:
- Local Environment: 2
- Behavioral Change:
- Species Diversity/Conservation:
- Other (Please Describe):

9. Please name any other project leaders:

Name

| Title & Department | |
|--------------------|--|
| Project Role | |
| Email | |
| | |
| Name | |
| Title & Department | |
| Project Role | |
| Email | |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long-term effects.

The Farmbot.Wildcats 1st Bot is for the organization to raise enough funds for the purchase of the organization's first Farmbot. The purpose of the organization is for students to explore automation and robotic technology through Farmbot – a hardware and software platform that allows for garden growing automation. As member students explore automation through Arduino and Raspberry Pi electronics, beginner-intermediate coding, and agriculture/horticulture, the organization's constitution states that all food grown is to be donated to local hunger charities in our community. Students will develop hard skillsets and the donation of all food grown is a direct social pillar of sustainability. Not to mention the

long-term economic savings and the potentially ZERO CO2 emissions after the purchase and shipping of the Farmbot.

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

At this time, Farmbot.Wildcats does not have a project affiliate.

- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates: 1
 - Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The intended University of Kentucky's audiences will be for undergraduate students, open to all. Membership, as the organization's first semester, is at a total of 4 undergraduate students with efforts more on fundraising rather than recruiting for the organization's first Farmbot. The Farmbot.Wildcats' vision is to impact as many students as possible after the organization learns how to run the Farmbot itself, so that the organization may begin teaching its members. However, we do not plan to only impact the students on campus, but the organization plans to impact the local charities by donating all food grown for the life of the organization.

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

All members will be involved in the currently proposed project of obtaining the first Farmbot for our organization. The members will be learning hard skills such as programming and coding, following installation and uninstallation directions of putting the Farmbot together while getting familiar with components of hardware pertaining to electrical components and structural pieces, and horticultural skills in gardening.

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Other than this current proposal, Farmbot.Wildcats have no history with the UK Student Sustainability Council.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

April 2018 – purchase Farmbot May 2018 – finals and summer break July 2018 – install Farmbot Fall 2018 – Harvest first Farmbot.Wildcats yield

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

The location as to where the Farmbot will be permanently located is still to be determined.

18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?

The Student Sustainability Council name and logo will be displayed on ALL materials associated with the project that funding is allocated for. Yes, a Farmbot.Wildcats leader representative would be available for a radio interview.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | Cost | st from SSC | of remaining funds |
|----------------|------|-------------|--------------------|
| t Genesis | | | |
| g and Handling | | | |
| | | | |
| | | | |

- 20. Are you willing to accept a general reduction in your budget?Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The 2017-2018 meeting schedule is on our website.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Sophia Dovenbarger & Cameron Baller
- 2. Email: sldo228@uky.edu & crballer1@uky.edu
- 3. UK Affiliation: Undergraduate
- 4. Proposed Project Title: Catalyst Summer Training Program
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): Kentucky Student Environmental Coalition (KSEC)
- 6. Total Amount Requested from the Council: **\$1,750**
- 7. Would you like to make a presentation to the Council before your proposal is reviewed?

Yes!

- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water:
 - Renewable Energy/

Energy Conservation:

- Climate Change:
- Local Environment: 2
- Behavioral Change:
- Species Diversity/Conservation:
- Other (Please Describe): Activism: 1

9. Please name any other project leaders:

| Name: Cara Cooper | |
|-------------------------------|--|
| Title & Department: State | |
| Organizer | |
| Project Role: Lead Organizer | |
| Email: ksec.cara@seac.org | |
| | |
| Name: Allison Crawford | |
| Title & Department: | |
| Communications & | |
| Development Director | |
| Project Role: Finance | |
| Coordinator | |
| Email: | |
| allisoncrawford221b@gmail.com | |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

- 10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.
- Catalyst is a week-long intensive training program designed for young leaders pursuing environmental activism. We seek to provide students and residents the skills necessary to bring about environmentally-positive changes to their campus and/or communities. Catalyst also seeks to connect students with one another across the state to create lasting bonds and supporting solidarity. With this grant, we hope to fund 5 UK students to cover the registration cost for the program. Previous UK students that have attended Catalyst have implemented ideas as leaders of sustainability in their own school, community, and region. By funding the

program cost, the Student Sustainability Council will be investing in UK student knowledge that will continue and progress for years to come.

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

All participants across the state will be asked to seek their own funding from their universities. UK students will be required to pay for their own registration fees of \$350 each should we not receive funding from the SSC.

- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates: 1
 - Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

- 13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).
- The primary audience that would benefit from the funds would be the 5 UK students chosen to attend Summer Catalyst 2018. The skills and knowledge they would bring back to UK will invigorate all sustainability efforts they choose to pursue. Previous participants use their knowledge to aid sustainability here at UK and across the state. Attendees should be equipped to share their knowledge with others at the conclusion of Catalyst. Additionally, KSEC will make educational resources available to aid in success.
 - 14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?
- One of the key goals of Catalyst is to develop student leadership. The communication and organizational skills Catalyst cultivates will be universally applicable to all professional fields that participants enter. The anti-oppressive practices and knowledge of Catalyst will further encourage a more progressive and open society.
 - 15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.
- Currently, I am one of the primary trainers organizing Catalyst. UK Greenthumb our campus' student environmental organization – is a KSEC member group. Greenthumb has had an SSC representative for many years. Many KSEC members have served on the SSC in the past. Additionally, the SSC has granted money to fund registration fees for UK participants in the past years.
 - 16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.
- 4/1-6/1: Recruit 5 participants

6/1: Have all participants registered

7/7-7/14: Catalyst Program

- Post-Catalyst: Trainers will maintain contact with participants to provide any additional advice or resources.
 - 17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.
- No.
 - 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?

The Student Sustainability Council will be credited during the recruitment process for funding scholarships. The SSC will also be credited alongside all other sponsors on the first day of the event. I would be available and pleased to do a radio interview.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | Cost | st from SSC | of remaining funds |
|-----------|--------------------------|-------------|--------------------|
| ATION FEE | r person for 5 people | | Fundraising |
| | | | |
| | | | |
| | | | |

- 20. Are you willing to accept a general reduction in your budget? Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The 2017-2018 meeting schedule is on our website.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Alissa Rossi, PhD
- 2. Email: alissa.rossi@uky.edu
- 3. UK Affiliation: Community & Leadership Development, GEN100 Program Coordinator
- 4. Proposed Project Title: "Connecting Food to the First-Year Experience"
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): GEN100 Program & The Food Connection
- 6. Total Amount Requested from the Council: \$3000
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? No
- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening: X
 - Water:
 - Renewable Energy/

Energy Conservation:

- Climate Change: • Local Environment:
- Behavioral Change: X

•

- Species Diversity/Conservation:
- Other (Please Describe): Sustainable Eating

9. Please name any other project leaders:

| Name | rislen |
|--------------------|---|
| Title & Department | ve Director of the Food Connection |
| Project Role | r of Food Connection Involvement |
| Email | rislen@uky.edu |
| | |
| Name | Shade |
| Title & Department | r, Community and Leadership Development |
| Project Role | /ith GEN100 Coordination |
| Email | Shade@uky.edu |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.

Our program seeks funding to support hands-on culinary instruction in local, sustainably sourced food for first year students in the College of Agriculture Food and the Environment (CAFÉ). As future leaders in our Agro-food systems, we believe it is important that our CAFÉ students to have the opportunity to not only 'know' where their food comes from, but have firsthand farm-to-table experience.

This program will provide funding for all GEN 100 courses (a required course for all CAFÉ first-year students) to participate in a cooking demonstration or class focused on local and sustainably sourced foods. There are 22 sections of GEN 100 scheduled for the fall. Because of scheduling and capacity limitations, we will offer a mixture of culinary experiences to all sections of the course. Specifically, we seek funding for 16 sections to participate in a live cooking demonstration and sampling, 6 sections to participate in a hands-on one-hour cooking class, and funding for 75 GEN 100 students to participate in in-depth 2.5 hour cooking classes offered regularly at The Food Connection on different specialty topics (e.g. ethnic cuisine, nutritional meals on a budget, seasonal dishes).

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

The Food Connection, a center on campus, offers heavily subsidized rates for their culinary instruction, and will further sponsor the participation of students in in-depth culinary classes to the rate of \$20 per student for 75 students (a \$1,500 direct sponsorship).

12. Please mark the primary target population of your project with a **1**.

- UK (general):
- Undergraduates: 1
- Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

- 13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).
- The intended audience is incoming freshman to the College of Agriculture Food and the Environment, with a total of 550 students anticipated to be directly impacted by this programing.
 - 14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?
- All of the 550anticipated students impacted by this proposal, all will receive instruction and education in technical skill related to the culinary arts and nutrition.
 - 15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.
- Neither the GEN100 Program nor the Food Connection has received any funding from the UK Student Sustainability Council. The GEN100 Program did earn a Sustainability Challenge Grant for the 2017-2018 academic year.
 - 16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

| е | k |
|-------|--|
| -18 | cit applications from GEN100 Instructors who would like to include one hour cooking class in their syllabus |
| 18-ال | tery drawing for one-hour class sponsorships. Winners informed, all other instructors invited to schedule demonstration/lecture visits |
| ug-18 | cooking classes and demonstrations scheduled |

| Aug-18 | dates for 2 hour cooking classes for fall semester finalized and sent to GEN 100 instructors for inclusion in their syllabus |
|--------|---|
| an-19 | luation data compiled, and final report completed |
| going | |
| ekly | ail evaluations sent to all demonstration and cooking class participants |
| nthly | ail reminders sent to all GEN 100 students reminding them of cooking class scholarships and opportunities |

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

No

- 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?
- The Student Sustainability Council will be credited in all GEN 100 syllabi and the SSC work mark will be included in all advertisements for cooking classes for which sponsorships are available. We will also credit the SSC in all social media posts by The Food Connection related to these program activities. (see feeds @ukfoodconnect).
 - 19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | | Cost | est from SSC | of remaining funds |
|--|---------|------|--------------|--|
| ustainable food cooking demonstration and sampling for a class of 25 students | | | | |
| ur hands-on basic cooking class on local and sustainable food for 25 students | | | | |
| ition for individual students to attend 2.5 hour in-depth culinary class on local, sustainable food | student | | | d Connection will sponsor balance of fees. |
| | | | | |

20. Are you willing to accept a general reduction in your budget?

Yes

21. Are you willing to accept line item changes in your budget?

Yes

22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The 2017-2018 meeting schedule is on our website.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Philip Crowley
- 2. Email: pcrowley@uky.edu
- 3. UK Affiliation: Professor of Biology and Director, Ecological Research and Education Center
- 4. Proposed Project Title: Stream Restoration and Student Engagement at the EREC Field Station Near the Campus
- If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): Ecological Research and Education Center, Department of Biology, and UKPPD
- 6. Total Amount Requested from the Council: \$ 40,796
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes
- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water: **1**

Energy Conservation:

- Renewable Energy/
- Behavioral Change:
 - Species Diversity/Conservation: 2 (tie)

Climate Change:Local Environment: 2 (tie)

- Other (Please Describe):
- 9. Please name any other project leaders:

Name: Philip Crowley

Title & Department: Professor of Biology and Director, Ecological Research and Education Center

Project Role: Project Leader

Email: pcrowley@uky.edu

Name: Carmen Agouridis

Title & Department: Extension Associate Professor, Biosystems/Ag Engineering

Project Role: Liaison between student designers and EcoGro contractor

Email: carmen.agouridis@uky.edu

Name: Steven Price

Title & Department: Associate Professor, Forestry

Project Role: Establishing salamander, crayfish, and other invertebrate populations in the stream

Email: steven.price@uky.edu

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.

We propose to restore a stream at UK's in-town field station, the Ecological Research and Education Center (EREC; on Russell Cave Road near the city's Northside Branch Library), to enhance student learning opportunities during and after the restoration. Each year, EREC accounts for about 4500 student-hours of ecology coursework and independent student research from UK and Transy undergraduates, and many hundreds of additional hours from graduate students in Biology, Forestry, and Entomology. Regular events bring many other university, high school, and middle school students, teachers, and community members to EREC. This stream restoration project will inform these existing students and visitors plus the additional students and community members specifically targeted here to the project and its implications.

Roads and building construction in recent years interrupted surface water drainage across the field station property and reduced the stream there to an intermittent trickle. Our goal is to restore the stream's form and function and re-establish a healthy riparian ecosystem. Water is lost from the stream in two main ways: evapotranspiration from the dense honeysuckle understory, and leakage from the degraded and honeysuckle-root-punctured stream bottom. These macropores produce a losing reach with flow a few feet below the substrate surface. Our project addresses these issues, first by eliminating the honeysuckle (cutting the trunks at ground level and applying concentrated glyphosate, a non-persistent herbicide; see the first EcoGro quote), and then by restoring and sealing the stream course (using a design developed by students in BAE 532, in collaboration with ecologically knowledgeable wetland restoration contractors; see the second EcoGro quote). A weir will be installed at the downstream end of the reach so that water flow can be monitored for class exercises and research projects. We will then re-establish a sustainable stream ecosystem by transplanting native species found nearby to the site, including the salamander Ambystoma barbouri and an array of invertebrates, notably the crayfish Orconectes spp, amphipods, isopods, snails, and zooplankton. We anticipate that the stream restoration will allow aquatic insects will quickly colonize along with streamside vegetation. See Figures 1 and 2 below.

The main goal of this project is to enhance student learning about sustainable stream restoration and riparian ecosystems. Students from several UK classes will observe the restoration process and then participate in monitoring, assessing, and generally utilizing the stream for instruction and research. These classes include ecology (BIO 325, BIO 325H and Transy's BIO 4144), entomology (ENT 300 and Transy's 2504), stream restoration (BAE 532/CE 542), hydrogeology (EES 385, 585), forestry (FOR 510, 530, 540), and independent research (e.g. BIO 395) (see support letters from some of the course instructors). A secondary goal is community engagement through school on-site exercises and guided visits by community groups. The Winburn area surrounding EREC is the most socio-economically disadvantaged section of Lexington (a recent LFUCG evaluation found 69% of the children there living in poverty!). EREC has established good working relationships with the community leadership and with the local schools, particularly Winburn Middle, Bryan Station High and Middle, and the STEAM Academy (see the support letter from the STEAM Principal). Kentucky River Watershed Watch already meets regularly at EREC; UK's Cooperative Extension can also connect with the project through the 4-H Teen Converence and the Kentucky Master Naturalist Program. We will initiate discussions with all of these on how they can best take advantage of this project if we are notified of funding.

EREC has outstanding facilities for experimentation in artificial streams (a facility with four riffle-pool systems and a new NSF-funded 20-channel remote video stream system that is truly state of the art). Restoring the stream historically existed across the site complements those experimental facilities and can provide research organisms for experimentation. The proposed stream restoration is the first stage of a major wetland expansion at EREC, which already has 16 small ponds (3 x 6 m) and 3 large ponds (5 x 10 m). The field immediately adjacent to the stream restoration site will be proposed for wetland development through a \$300K LFUCG Stormwater Quality Projects Incentive Grant, to be submitted in July 2018, and the stream restoration will serve as a match (depending on the timing of funding) or will at least considerably strengthen the case for the larger project.

This project addresses all three pillars of sustainability. Its *environmental* contributions to natural drainage/ecosystem restoration and water retention within the Cane Run watershed should be clear. Its *social* impact will be felt through the educational focus (university, schools, and the general public) and through community engagement within an underserved area of the city. The *economic* impact is demonstrated through the ecosystem services provided by increased water retention within the aquifers of the watershed (retained surface water supplies groundwater a few hundred meters beyond the surface stream course)—and as part of the larger wetland water-retention plan to be facilitated by this proposed initial phase. The many students to be exposed to the stream restoration project will develop a greater appreciation for ecosystem services, and some of them will go on to careers where this concept will play an important role.

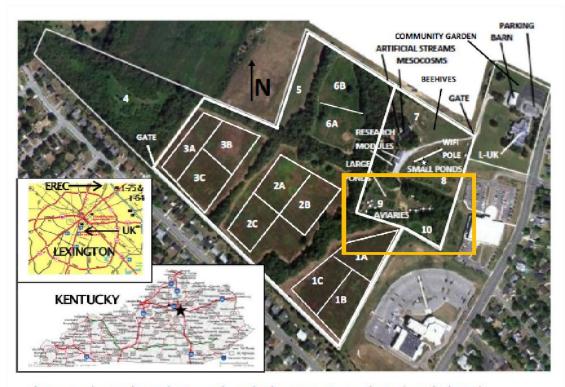


Figure 1. The Ecological Research and Education Center (EREC), including the UK/Lexmark (L-UK) building and its immediate surroundings (parking, barn, garden, lawn) and the Ecological Research Facility (remainder of the area bounded by white lines). Heavy white lines indicate fence. Main facilities and the ten research fields are indicated; the three successional fields each contain three subfields at different stages of a 3-year successional sequence. The white star in field 8 shows the location of the weather station. EREC is easily accessible across the Bluegrass and beyond via the north-south (I-75) and east-west (I-64) highways five minutes away from the field station by car. The orange rectangle shows the area of Figure 2.

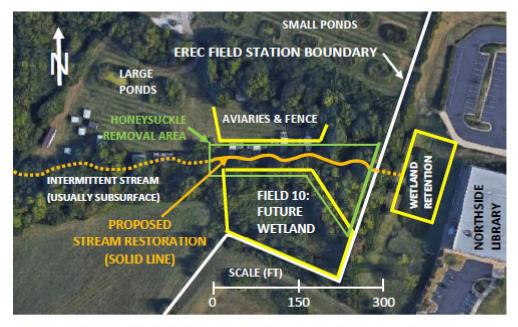


Figure 2. Enlarged view showing the proposed site of stream restoration near the field station boundary with the Lexington-Fayette Northside Branch Library. The library's retention pond collects run-off from roughly 50-100 acres to the east of EREC, and much of this flows through a culvert across the EREC boundary, following the original course of the stream to be restored. In this project, we propose clearing Amur honeysuckle adjacent to the stream and restoring the stream channel and ecosystem over the indicated length.

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

A closely related but more extensive project was proposed for the previous Sustainability Competition but not selected for funding. The current request from SSC is much more student-focused and takes a more sustainable approach to the stream restoration. Because the general approach and potential for interaction with stakeholders from the previous proposal are unchanged, the letters of support from the previous submission are included here as an attachment to avoid troubling busy people for new letters. (Most of them have already indicated their support for this revised project by e-mail.) Included are letters from some of the faculty members whose classes will take advantage of the project (Drs. Agouridis, Fryar, and Price); the head of the Water Resources Section of the Kentucky Geological Survey (Dr. Taylor), who will provide guidance and initiate collaboration with EREC through the project; the Director of NKU's Center for Environmental Restoration (Dr. Fennell), who will also provide guidance as we extend the proposed project into the larger wetland restoration on the site; personnel at the STEAM Academy (Dr. Michael Lauer and Principal Tina Stevenson), who indicate how the project will help them advance STEAM's commitment to the Next Generation Science Standards; support from leaders at the contracting firm EcoGro (Hanssen and Dawalt), which has successfully completed other wetland restoration work for UK and will undertake the current project; and a letter from the manager of Planning, Design, and Construction in UKPPD (Armstrong), expressing his approval of the project. Though we have no matching or in-kind support per se, the proposed project will itself advance the next phase of wetland expansion at EREC through the \$300K LFUCG Stormwater Quality Projects Incentive Grant to be submitted in July 2018.

12. Please mark the primary target population of your project with a **1**.

- UK (general):
- Undergraduates: 1
- Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The intended audience for the proposed project is indicated in the above sections. Over 100 undergraduate students will learn about the project and take advantage of the opportunities it affords each year. We will link the project to the surrounding community through an event planned for project completion, through our interactions with the nearby schools, and through other community-related activities at EREC that will give us the opportunity to describe and show the restored stream.

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

As noted above, students are heavily involved in the project, from the current planning phase through construction and subsequent educational use. Students will be able to enhance their technical skills by monitoring and sampling the stream system and learning about the ecosystem services provided by riparian and other wetland ecosystems. They will also conduct independent research projects facilitated by the proposed stream restoration, culminating in presentations of their work.

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Project leader Crowley participated in an SSC-funded project two years ago to establish a Monarch butterfly way-station at EREC. This advanced the work of two graduate students (one in Biology and one in Economics) and involved quite a few volunteer undergraduates. The way-station is still in operation.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

Project Timeline:

May-June 2018—Honeysuckle removal July-September 2018—Restoration of the stream channel and banks, with installation of the weir September 2018—Initiating monitoring of stream flow September-October 2018—Introduction of native crayfish and other invertebrates to the stream February-March 2019—Introduction of larval *Ambystoma barbouri* salamanders to the stream May-June 2019—Monitoring emergence of metamorphs from the stream

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

IACUC approval will be required when *A. barbouri* are introduced into the stream. At this point, our project does not strictly require approval from UK administration; nevertheless, we have sought and obtained approval by the head of Planning, Design, and Construction in UKPPD (see Armstrong letter), which oversees the maintenance of the EREC field station.

18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?

The Student Sustainability Council will be credited with providing support in all student and faculty research projects that use the restored riparian system or its organisms. All classes and visiting groups will be informed about the SSC's role in making the restoration possible. The project and the SSC's contribution will be prominently acknowledged on the EREC website and in EREC's semi-annual newsletters (*Ecolink*), and an article in *UKnow* will be suggested. The project leader would enthusiastically welcome the opportunity to discuss the project in a radio interview or other media.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

The budget is summarized in detail in the two attached quotes. 100% of the funding is requested from SSC. The quotes represent generous pricing by EcoGro, particularly the stream restoration. Their willingness to do the stream restoration for such a modest price relates to the strong possibility of their involvement in the stormwater grant project to be proposed in July.

| Description | \$ Total Cost | \$ Request from SSC | Source of remaining funds |
|---------------------|---------------|---------------------|---------------------------|
| Honeysuckle removal | \$8,800 | \$8,800 | N/A |
| Stream restoration | \$31,996 | \$31,996 | N/A |

20. Are you willing to accept a general reduction in your budget?

Yes

21. Are you willing to accept line item changes in your budget?

Yes

22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Attached are a file containing the letters of support from stakeholders and another file with the EcoGro quotes for the proposed work.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The 2017-2018 meeting schedule is on our website.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Gabriela A. Wolf-Gonzalez
- 2. Email: gawo224@g.uky.edu
- 3. UK Affiliation: Student
- 4. Proposed Project Title: Diet of a recently reintroduced river otter (Lontra canadensis) population in the upper Rio Grande River, New Mexico
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.):
- 6. Total Amount Requested from the Council: 7,000
- 7. Would you like to make a presentation to the Council before your proposal is reviewed?
- I would love to present my research and my research needs to the council.
 - 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water:
 - Renewable Energy/

Energy Conservation:

- Climate Change:
- Local Environment: 2
- Behavioral Change:
- Species Diversity/Conservation: 1
- Other (Please Describe):

9. Please name any other project leaders:

| Name | Cox |
|--------------------|------------------------|
| Title & Department | 1t Professor |
| Project Role | sor |
| Email | <u>ıky.edu</u> |
| | |
| Name | Springer |
| Title & Department | it Extension Professor |
| Project Role | sor |
| Email | inger@uky.edu |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

- 10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.
- From early colonization until the mid-20th century, many animals were overexploited. River otters were eliminated from much of their native range, and extirpated from 13 states. As the environmental movement emerged in the late 20th century several states began otter restoration projects, including New Mexico 2008. This project was discontinued in 2012 because of concerns of fish depredation.
- There is very little information regarding river otters in the southwestern United States, and none for river otters in New Mexico. Understanding otter diet is key to informing local fisheries managers, local anglers, and other recreationists about the ecological role of this aquatic carnivore.

River otters are also native to Kentucky, where they were reintroduced in the 1980s. Because river otters are not dietary specialists, we can compare food habits of those in New Mexico with Kentucky.

- I plan on creating two undergraduate intern positions, presenting my research in a department seminar (Forestry and Natural Resources), introduction to wildlife biology (FOR 101) and Conservation biology (FOR 435), 4-H programs, as well as to local groups in New Mexico (I have been invited to talk to students in the conservation biology course at the University of New Mexico).
 - 11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

New Mexico Game and Fish: Providing research funding of \$18,000.

UNM Museum of Southwestern Biology: Providing research samples to create prey identification Key Amigos Bravos: Providing equipment and initial maps.

- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates:
 - Graduates:

- Community: 1
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

- 13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).
- I will present my research to at least two undergraduate classes at UK (FOR 101 and 435), lead a department seminar, and disseminate research findings at scientific meetings. I have already presented a poster at the Midwest Fish and Wildlife Conference and the Kentucky Chapter TWS meeting.
 - 14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?
- Using funds from this grant, I hope to create two undergraduate students to assist with research. These students will gain lab experience with the identification of scales, bones, and exoskeleton. They will also gain experience with data input and mapping using geographic information systems.
 - 15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Only my co-advisor, Dr. John Cox has a current student (Stratton Hatfield) that has received funding support from SSC.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

| Winter '17: Hiring technicians, establish survey area, acquiring permits, and begin sample collections | |
|--|---|
| Spring '18: | Technicians will continue to survey, samples will be sent to KY for examination |
| Summer '18: | Field surveys, internship begins and intern will start to categorize remains. |

| Fall -Winter '18: | Field surveys and scat analysis; intern finish categorizing remains and create a presentation regarding their work; Initiate data analysis. |
|----------------------------|---|
| Winter '18- Spring '19: | Data analysis and thesis preparation |
| Spring '19: | Thesis defense |

- 17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.
- My research project has been approved and permits received from agencies in New Mexico, with research initiated January 2018. However, there is no current funding for field housing and undergraduate help, and is mostly used for travel.
 - 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?

The SSC will be thanked during all presentations and credited as a funding source in the published thesis and peer-reviewed publications.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | Cost | est from SSC | of remaining funds |
|--------------------------|------|--------------|-----------------------|
| for internships | | | ent source of funding |
| xpenses for research | | | ent source of funding |
| expenses for research | | | ent source of funding |
| neous equipment/expenses | | | ent source of funding |

- 20. Are you willing to accept a general reduction in your budget? Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Harrison Stranc
- 2. Email: Harrison.stranc@uky.edu
- 3. UK Affiliation: Farmbot.Wildcats
- 4. Proposed Project Title: Farmbot.Wildcats 1st Bot
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.):
- 6. Total Amount Requested from the Council: \$3,895
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes.
- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening: 1
 - Water:

Renewable Energy/

Energy Conservation:

- Climate Change:
- Local Environment: 2
- Behavioral Change:
- Species Diversity/Conservation:
- Other (Please Describe):

| 9. Please name any other project leaders |
|--|
|--|

Name

| Title & Department | |
|--------------------|--|
| Project Role | |
| Email | |
| | |
| Name | |
| Title & Department | |
| Project Role | |
| Email | |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long-term effects.

The Farmbot. Wildcats 1st Bot is for the organization to raise enough funds for the purchase of the organization's first Farmbot. The purpose of the organization is for students to explore automation and robotic technology through Farmbot – a hardware and software platform that allows for garden growing automation. As member students explore automation through Arduino and Raspberry Pi electronics, beginner-intermediate coding, and agriculture/horticulture, the organization's constitution states that all food grown is to be donated to local hunger charities in our community. Students will develop hard skillsets and the donation of all food grown is a direct social pillar of sustainability. Not to mention the long-term economic savings and the potentially ZERO CO2 emissions after the purchase and shipping of the Farmbot.

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

At this time, Farmbot.Wildcats does not have a project affiliate.

- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates: 1
 - Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The intended University of Kentucky's audiences will be for undergraduate students, open to all. Membership, as the organization's first semester, is at a total of 4 undergraduate students with efforts more on fundraising rather than recruiting for the organization's first Farmbot. The Farmbot.Wildcats' vision is to impact as many students as possible after the organization learns how to run the Farmbot itself, so that the organization may begin teaching its members. However, we do not plan to only impact the students on campus, but the organization plans to impact the local charities by donating all food grown for the life of the organization.

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

All members will be involved in the currently proposed project of obtaining the first Farmbot for our organization. The members will be learning hard skills such as programming and coding, following installation and uninstallation directions of putting the Farmbot together while getting familiar with components of hardware pertaining to electrical components and structural pieces, and horticultural skills in gardening.

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Other than this current proposal, Farmbot.Wildcats have no history with the UK Student Sustainability Council.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

April 2018 – purchase Farmbot May 2018 – finals and summer break July 2018 – install Farmbot Fall 2018 – Harvest first Farmbot.Wildcats yield

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

The location as to where the Farmbot will be permanently located is still to be determined.

18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?

The Student Sustainability Council name and logo will be displayed on ALL materials associated with the project that funding is allocated for. Yes, a Farmbot.Wildcats leader representative would be available for a radio interview.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | Cost | st from SSC | of remaining funds |
|----------------|------|-------------|--------------------|
| t Genesis | | | |
| g and Handling | | | |
| | | | |
| | | | |

- 20. Are you willing to accept a general reduction in your budget?Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Ridvan Aydin
- 2. Email: ray223@uky.edu
- 3. UK Affiliation: Postdoctoral Researcher
- 4. Proposed Project Title: Student Engagement in the Global Conference on Sustainable Manufacturing
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.):
- 6. Total Amount Requested from the Council: \$4,000
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes.
- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water:
 - Renewable Energy/ Energy Conservation: 2

- Climate Change:
- Local Environment:
- Behavioral Change:
- Species Diversity/Conservation:
- Other (Sustainable Manufacturing): 1

| Name | Buddhika Hapuwatte |
|--------------------|---|
| Title & Department | Ph.D. Student, Institute for Sustainable Manufacturing and Mechanical |
| | Engineering |
| Project Role | Co-lead |
| Email | hapuwatte@uky.edu |
| | |
| Name | Fazleena Badurdeen |
| Title & Department | Faculty, Institute for Sustainable Manufacturing and Mechanical |
| | Engineering |
| Project Role | Co-Lead |
| Email | ffbadu2@uky.edu |
| | |

9. Please name any other project leaders:

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.

The 16th Global Conference on Sustainable Manufacturing (GCSM) will be held in Lexington KY, on October 2 – 4, 2018, and is organized by the Institute for Sustainable Manufacturing (ISM) at the University of Kentucky together with the Technical University of Berlin (TUB) Germany. The GCSM is one of the largest international conferences on sustainability/sustainable manufacturing and has not been held in the US since 2007. Over 200 international researchers and practitioners from academia, agencies and industry are expected to present their work on various aspects of sustainability/sustainable manufacturing. This year's theme will be "Sustainable Manufacturing for Global Circular Economy". Multiple sessions will be conducted under the main topics: Sustainable Products; Sustainable Processes; Sustainable Systems; and Cross-cutting topics in Sustainable Manufacturing. These sessions will discuss the economic, environmental, and societal (Triple Bottom Line) concerns in those respective areas.

The goal of this grant proposal is to provide the UK students who have shown their interest and worked on sustainability/sustainable manufacturing a great opportunity of attending the GCSM 2018 to present their research work to a global audience, to learn about the state-of-the-art research work, to study the multidisciplinary approaches in sustainability, as well as to allow networking opportunities with the international researchers, industry representatives and government agencies in sustainability. In addition, a student competition between TUB and UK students will be held to design sustainable products considering remanufacturing for industry.

This year the GCSM being in Lexington provides a unique opportunity for UK students to participate in it. The Institute for Sustainable Manufacturing (ISM) has been a pioneer research institute on sustainable manufacturing (including the creation of 6Rs concept of sustainability). ISM has large number of graduate students working in different research areas within sustainable manufacturing. We have identified the students who are currently working on sustainability related areas and who may most benefit from attending this conference. Being a global conference, the GCSM regulations stipulate that everyone attending it must be registered. Unlike the other years when it was held in different countries, this year UK students have the chance to attend it without having additional travel costs.

Attending the GCSM will advance the UK students' understanding on how sustainable manufacturing promotes a circular economy, and learning principles such as the closed-loop material flow which helps reduce resource consumption and waste generated, decrease the cost of manufacturing and disposal, increase global manufacturing competitiveness, mitigate environmental impacts and establish health and safety standards/regulations.

Presenting their work in a global conference and the extensive opportunities to learn from world-renowned experts on sustainability will motivate the UK students to conduct further research in sustainability. We believe these interactions and exposure to global interest on sustainability will also promote at sustainable-oriented mindset in the attendees, and make them more responsible, sustainability-aware citizens. During the conference, various techniques and applications will be presented on how economic, environmental and social benefits can be achieved through sustainable product development, manufacturing processes and systems. These will benefit the students understanding, and advance their perspective to see the opportunities at UK and future workplaces to practice sustainability principles.

Furthermore, through sharing of experience and knowledge the students gain during the conference, it is expected to have a large direct and indirect impact within the community of UK.

In order to further enhance the dissemination of knowledge gathered from the conference, we are requesting funding to also offer free GCSM conference registration awards to two students, nominated by the SSC and not affiliated with the ISM. As a condition of the award, we will request that they develop and present a poster at the next Tracy Farmer Institute for Sustainability and the Environment Forum, to document their learning from the GCSM. This will not only ensure that the key messages from the conference is shared with a broader community but will also enable further benefits to the SSC by potentially engaging the two students in future activities.

 Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged. The Department of Mechanical Engineering will provide \$1,200 to cover registration costs for three Mechanical Engineering graduate students, and Institute for Sustainable Manufacturing will provide \$1,200 to cover registration costs for three ISM graduate students and postdoctoral researcher. Support letters from the two units are attached.

- 12. Please mark the primary target population of your project with a 1.
 - UK (general):
 - Undergraduates:
 - Graduates: 1

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The intended audiences are primarily undergraduate and graduate students. While the number of attendees is limited, the attendees are expected to share their experience and learnings with their classmates and other UK students. Since many of the selected students are UK Teaching Assistants and Research Assistants closely working with other undergraduate students, the secondary knowledge-share opportunities will be countless. Especially with the TAs and RAs who are conducting lab sessions and other education-support activities, improvement to their personal understanding of sustainability and its applications will make noticeable improvements on the lab sessions and other activities.

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

| Name | Status | Abstract submitted? | Presentation? | Area of interest |
|-------------------------|------------------------------------|---------------------|---------------|---|
| Ridvan Aydin | Postdoctoral Scholar | Yes | Yes | Sustainable product development |
| Buddhika Hapuwatte | PhD Student | Yes | Yes | Sustainable product development |
| Christian Enyoghasi | PhD Student | Yes | Yes | Sustainable product development |
| James Caudill | PhD Student | Yes | Yes | Sustainable processes |
| Ryan Bradley | PhD Student | Yes | Yes | Sustainable business models |
| Chandniben Joshi | PhD Student | Yes | Yes | Product recovery, reuse and remanufacturing |
| Ankit Jangid | MS Student | Yes | Yes | Sustainable manufacturing system |
| 7 additional students | Graduate/undergraduate students | No | No | Participation in the sustainable student project Will be engaged with the conference sessions and help organizing the sessions |
| 2 students from the SSC | Undergraduate | No | No | Not applicable |

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

None of the students or co-leaders were awarded any SSC funding.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

| Notification of students about the SSC registration award | May 30, 2018 |
|---|------------------------|
| Nominating 2 students by the SSC | September 4, 2018 |
| Conference registration | September 15, 2018 |
| Preparation for the student competition | May 1 – August 1, 2018 |
| The GCSM conference | October 2-4, 2018 |
| SSC students present a poster at TFISE Forum | December 5, 2018 |

- Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.
 No.
- 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview? If awarded, two free registrations will be provided to students nominated by the Student Sustainability Council to attend the GCSM. Sponsorship of the SSC will be shared in the conference website, conference program booklet and displayed at the conference. The SSC nominated students can bring a poster and/or banner to display at the GCSM, and promote the work done by the SSC.
- 19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| Description | \$ Total | \$ Request | Source of remaining |
|---|----------|------------|---------------------|
| | Cost | from SSC | funds |
| Conference registration fee for 14 | \$5,600 | \$3,200 | \$2,400 |
| graduate/undergraduate students | | | |
| Conference registration fee for 2 students from the SSC | \$800 | \$800 | None |
| Total | \$6,400 | \$4,000 | \$2,400 |

- 20. Are you willing to accept a general reduction in your budget? Yes
- 21. Are you willing to accept line item changes in your budget? Yes
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.





Director: Professor I.S. Jawahir Phone: (859) 323-3239 Fax: (859) 257-1071 E-mail: is.jawahir@uky.edu Web: <u>www.ism.uky.edu</u>

INSTITUTE FOR SUSTAINABLE MANUFACTURING (ISM)

College of Engineering Lexington, KY 40506-0108 USA

April 10, 2018

Chair and Members Sustainability Students Council University of Kentucky

Dear Chairperson and Members,

Support for Graduate Student Registration for Attending the 16th Global Conference on Sustainable Manufacturing (GCSM) in October 2018

I write to confirm that the Institute for Sustainable Manufacturing (ISM) will provide \$1,200 in cost-match for UK graduate students and/or post-doctoral researchers from ISM to attend and present their work at the 16th Global Conference on Sustainable Manufacturing (GCSM) to be held in Lexington KY on October 2-4, 2018.

This major international conference, 16th in the series, is being organized by the University of Kentucky in collaboration with the Technical University of Berlin (TUB), and we expect over 200 participants from more than 30 countries representing academic, industrial, and agency communities. I strongly endorse and recommend this proposal requesting funding for registration support. We believe that the potential awardees will benefit from this unique opportunity to learn new knowledge in the cutting edge research areas of sustainable manufacturing and will develop greater interactions with conference participants.

Sincerely,

Tawah

Dr. I.S. Jawahir Director, ISM, Professor of Mechanical Engineering, and James F. Hardymon Chair in Manufacturing Systems



April 10, 2018

Support to Cover Registration Costs for Global Conference on Sustainable Manufacturing (GCSM) 2018

This is to confirm that the Department of Mechanical Engineering, University of Kentucky is glad to provide \$1200 as a cost match for this proposal to cover registration costs for Mechanical Engineering graduate students working in collaboration with the Institute for Sustainable Manufacturing (ISM), to attend and present their work at the 16th Global Conference on Sustainable Manufacturing (GCSM) to be held in Lexington KY on October 2 - 4, 2018.

This award will support the dissemination of research work from our students, and the awardees will have this opportunity to learn the state-of-the-art in sustainable manufacturing by engaging with the international research community and the industry.

Sincerely,

1/2 A

Michael W. Renfro Professor and Chair of the Mechanical Engineering Department University of Kentucky 153 Ralph G. Anderson Building Lexington, KY 40506 email: michael.renfro@uky.edu

see blue.

151 Ralph G. Anderson | Lexington, KY 40506 | P: 859-257-6336 | F: 859-257-3304 | www.uky.edu/me/

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- Name: Alissa Rossi, PhD 1.
- 2. Email: alissa.rossi@uky.edu
- 3. UK Affiliation: Community & Leadership Development, GEN100 Program Coordinator
- 4. Proposed Project Title: "Connecting Food to the First-Year Experience"

- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): GEN100 Program & The Food Connection
- 6. Total Amount Requested from the Council: \$3000
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? No
- Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively. 8.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening: X
 - Water:
 - Renewable Energy/

Energy Conservation:

- Climate Change:
- Local Environment:
- Behavioral Change: X
- Species Diversity/Conservation:
- Other (Please Describe): Sustainable Eating

Please name any other project leaders: 9.

| Name | rislen |
|--------------------|---|
| Title & Department | ve Director of the Food Connection |
| Project Role | r of Food Connection Involvement |
| Email | rislen@uky.edu |
| | |
| Name | Shade |
| Title & Department | r, Community and Leadership Development |
| Project Role | /ith GEN100 Coordination |
| Email | .Shade@uky.edu |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.

Our program seeks funding to support hands-on culinary instruction in local, sustainably sourced food for first year students in the College of Agriculture Food and the Environment (CAFÉ). As future leaders in our Agro-food systems, we believe it is important that our CAFÉ students to have the opportunity to not only 'know' where their food comes from, but have firsthand farm-to-table experience.

This program will provide funding for all GEN 100 courses (a required course for all CAFÉ first-year students) to participate in a cooking demonstration or class focused on local and sustainably sourced foods. There are 22 sections of GEN 100 scheduled for the fall. Because of scheduling and capacity limitations, we will offer a mixture of culinary experiences to all sections of the course. Specifically, we seek funding for 16 sections to participate in a live cooking demonstration and sampling, 6 sections to participate in a hands-on one-hour cooking class, and funding for 75 GEN 100 students to participate in in-depth 2.5 hour cooking classes offered regularly at The Food Connection on different specialty topics (e.g. ethnic cuisine, nutritional meals on a budget, seasonal dishes).

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

The Food Connection, a center on campus, offers heavily subsidized rates for their culinary instruction, and will further sponsor the participation of students in in-depth culinary classes to the rate of \$20 per student for 75 students (a \$1,500 direct sponsorship).

12. Please mark the primary target population of your project with a **1**.

- UK (general):
- Undergraduates: 1
- Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The intended audience is incoming freshman to the College of Agriculture Food and the Environment, with a total of 550 students anticipated to be directly impacted by this programing.

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

All of the 550anticipated students impacted by this proposal, all will receive instruction and education in technical skill related to the culinary arts and nutrition.

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

Neither the GEN100 Program nor the Food Connection has received any funding from the UK Student Sustainability Council. The GEN100 Program did earn a Sustainability Challenge Grant for the 2017-2018 academic year.

| е | k |
|--------|--|
| -18 | cit applications from GEN100 Instructors who would like to include one hour cooking class in their syllabus |
| JI-18 | tery drawing for one-hour class sponsorships. Winners informed, all other instructors invited to schedule demonstration/lecture visits |
| ug-18 | cooking classes and demonstrations scheduled |
| Aug-18 | dates for 2 hour cooking classes for fall semester finalized and sent to GEN 100 instructors for inclusion in their syllabus |
| an-19 | luation data compiled, and final report completed |
| going | |
| ekly | ail evaluations sent to all demonstration and cooking class participants |

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

No

- 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?
- The Student Sustainability Council will be credited in all GEN 100 syllabi and the SSC work mark will be included in all advertisements for cooking classes for which sponsorships are available. We will also credit the SSC in all social media posts by The Food Connection related to these program activities. (see feeds @ukfoodconnect).
 - 19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | 5 | Cost | est from SSC | of remaining funds |
|---|---------|------|--------------|--|
| ustainable food cooking demonstration and sampling for a class of 25 students | | | | |
| ur hands-on basic cooking class on local and sustainable food for 25 students | | | | |
| tion for individual students to attend 2.5 hour in-depth culinary class on local, sustainable food | student | | | d Connection will sponsor balance of fees. |
| | | | | |

20. Are you willing to accept a general reduction in your budget?

Yes

- 21. Are you willing to accept line item changes in your budget?
- Yes
 - 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Sophia Dovenbarger & Cameron Baller
- 2. Email: sldo228@uky.edu & crballer1@uky.edu
- 3. UK Affiliation: **Undergraduate**
- 4. Proposed Project Title: Catalyst Summer Training Program
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): Kentucky Student Environmental Coalition (KSEC)
- 6. Total Amount Requested from the Council: \$1,750
- 7. Would you like to make a presentation to the Council before your proposal is reviewed?

Yes!

- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water:

Renewable Energy/

Energy Conservation:

Nama: Cara Caanar

- Climate Change:
- Local Environment: 2
- Behavioral Change:
- Species Diversity/Conservation:
- Other (Please Describe): Activism: 1

9. Please name any other project leaders:

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

- 10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.
- Catalyst is a week-long intensive training program designed for young leaders pursuing environmental activism. We seek to provide students and residents the skills necessary to bring about environmentally-positive changes to their campus and/or communities. Catalyst also seeks to connect students with one another across the state to create lasting bonds and supporting solidarity. With this grant, we hope to fund 5 UK students to cover the registration cost for the program. Previous UK students that have attended Catalyst have implemented ideas as leaders of sustainability in their own school, community, and region. By funding the program cost, the Student Sustainability Council will be investing in UK student knowledge that will continue and progress for years to come.

11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.

All participants across the state will be asked to seek their own funding from their universities. UK students will be required to pay for their own registration fees of \$350 each should we not receive funding from the SSC.

- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates: 1
 - Graduates:

- Community:
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

- 13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).
- The primary audience that would benefit from the funds would be the 5 UK students chosen to attend Summer Catalyst 2018. The skills and knowledge they would bring back to UK will invigorate all sustainability efforts they choose to pursue. Previous participants use their knowledge to aid sustainability here at UK and across the state. Attendees should be equipped to share their knowledge with others at the conclusion of Catalyst. Additionally, KSEC will make educational resources available to aid in success.
 - 14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?
- One of the key goals of Catalyst is to develop student leadership. The communication and organizational skills Catalyst cultivates will be universally applicable to all professional fields that participants enter. The anti-oppressive practices and knowledge of Catalyst will further encourage a more progressive and open society.
 - 15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.
- Currently, I am one of the primary trainers organizing Catalyst. UK Greenthumb our campus' student environmental organization is a KSEC member group. Greenthumb has had an SSC representative for many years. Many KSEC members have served on the SSC in the past. Additionally, the SSC has granted money to fund registration fees for UK participants in the past years.
 - 16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

4/1-6/1: Recruit 5 participants

6/1: Have all participants registered

7/7-7/14: Catalyst Program

- Post-Catalyst: Trainers will maintain contact with participants to provide any additional advice or resources.
 - 17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.
- No.
- 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?
- The Student Sustainability Council will be credited during the recruitment process for funding scholarships. The SSC will also be credited alongside all other sponsors on the first day of the event. I would be available and pleased to do a radio interview.
 - 19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

| tion | Cost | st from SSC | of remaining funds |
|------|------|-------------|--------------------|
| | | | |

| ATION FEE | r person for 5 people | Fundraising |
|-----------|--------------------------|-------------|
| | | |
| | | |
| | | |

- 20. Are you willing to accept a general reduction in your budget? Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Submit project proposals and/or questions on proposal processes to **ukstudentsustainabilitycouncil@gmail.com** with **'SSC Proposal'** as the subject line.

If successfully funded, a councilmember will be assigned to your project. Failure to communicate with this person can result in a total or partial loss of funding. Any changes in the use of approved funding must be resubmitted and re-approved by the Council. Unused funds are automatically returned to the SSC.

University of Kentucky Student Sustainability Council 2017-2018 Grant Application

- 1. Name: Jason Scroggin
- 2. Email: scroggin@uky.edu
- 3. UK Affiliation: College of Design, School of Architecture (UK/CoD, SoA)
- 4. Proposed Project Title: Berlin: Case Study of a Green City, 8-Week Immersive Study Abroad Program
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): UK College of Design / School of Architecture, UK Education Abroad, in collaboration with Aedes Metropolitan Laboratory (ANCB) Berlin.
- 6. Total Amount Requested from the Council: \$9025
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes.
- 8. Please mark the primary and secondary focus areas of your project with a 1 and 2, respectively.
 - Recycling:
 - Transportation:
 - Agriculture/Gardening:
 - Water:
 - Renewable Energy/ Energy Conservation:

- Climate Change:
- Local Environment:
- Behavioral Change: 2.
- Species Diversity/Conservation:
- Other (Please Describe): 1. Sustainability in Design
- 9. Please name any other project leaders:

| Name |
|--------------------|
| Title & Department |
| Project Role |
| Email |
| |
| Name |
| Title & Department |
| Project Role |
| Email |

Please note that any project leaders listed will be excused for closed discussion of their project proposal.

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social), including potential long term effects.

The University of Kentucky College of Design Architecture Studio in Berlin is an eight-week study abroad program led by faculty member Jason Scroggin. The design investigation will focus on an exploration and analysis of Berlin as a contemporary green city and the forces that currently define and shape this phenomena. Each participant will take part in two courses: a six-credit design studio and three-credit seminar. This work will be presented in an international venue in Berlin, and locally at the University of Kentucky. The immersive experience will introduce students to a cosmopolitan city that boasts over 2,500 public parks, covering a total-surface of approx. 16,000 acres (6,400 ha). Key to the program is engagement with the ANCB The Aedes Metropolitan Laboratory, which facilitates "design studios and public debates on a diverse range of subjects relevant to the city; generating valuable exchange between local and international students, policy makers, as well as industry and design experts."

- 11. Name any anticipated project affiliates and describe the extent of their support, including any financial, matching or in-kind support. Specific details are encouraged.
 - Education Abroad: Organizes and promotes the program. Through education abroad, students enroll in the program currently providing \$26,394 in funding towards realizing the project.
 - College of Design: General support for recruiting and promotion primarily through support and approval in the college Curriculum Committee and recruitment in working with Student Services.
 - Aedes Metropolitan Laboratory (ANCB) Berlin: Provides studio, critics, resources to professionals and venues in Berlin. <u>http://www.aedes-arc.de/sixcms/list.php?page=pg_aedes_ancb_startseite</u>
- 12. Please mark the primary target population of your project with a **1**.
 - UK (general):
 - Undergraduates:
 - Graduates:

- Community: 1 (Local, UK, and Berlin).
- Faculty:
- Other (Please Describe):

In 250 words or less, please answer the following questions.

13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

| UK: Annual UK/CoD Study Abroad Presentations Fall 2018: | College of Design Students (hundreds). |
|---|--|
| UK/CoD End of Year Show Spring 2019: | UK/CoD students, professionals, public (hundreds). |
| Education Abroad Presentations: | UK Students (hundreds). |
| ANCB Berlin, Public Presentation: | Local design professionals, government officials, and |
| | Berlin city stakeholders (hundreds). Online presentation |
| | (thousands). |
| UK/CoD Magazine and SoA Academic Journal: | Alumni and design professionals (hundreds). |

14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

Yes. 7 architecture students and a graduate teaching assistant conducting an 8-week long design investigation (research and proposal) with frequent interactions with and presentations to local design professionals and the Berlin city stakeholders. In addition, students receive 10 credit hours including a 6-credit hour design studio, 3 credit hour design elective, and 1 credit hour from Education Abroad from orientation courses.

15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

ARC 599 Design and Fabrication Elective, Fabricating Play, 2015. \$2,000 for materials.

16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

General Program Schedule

| Week 1: | May 28-01 | City Analysis., Field Research. |
|---------|------------|---|
| Week 2: | June 04-08 | City Analysis, Representation and Presentation. |
| Week 3: | June 11-15 | Site Research. |
| Week 4: | June 11-15 | Program Research. |
| Week 5: | June 11-15 | Project Development. |

| Week 6: | July 02-08 | Project Development. |
|--------------|-------------|--------------------------------------|
| Week 7: | July 09-13 | ANCB Presentation and Documentation. |
| Week 8: | July 14-20 | Group Travel. |
| Fall Semeste | er 2018: | UK/CoD Study Abroad Presentation. |
| Spring Seme | ester 2019: | UK/CoD End of Year Show. |

17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? If so, please provide supporting documentation.

Yes. Curriculum Committee of the College of Design. Please see attached documentation.

- 18. Please demonstrate how the Student Sustainability Council will be credited or advertised in your project (this can include promotional material). Would a project leader be available for a radio interview?
 - Via ANCB, UK/COD, and School of Architecture (SoA) website.
 - UK/CoD Berlin social media sites.
 - UK/CoD Magazine and SoA Academic Journal.
 - Education Abroad brochures, fliers, and website.

Yes to the radio interview.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

The three totals below are remaining items in the program budget that cannot currently be covered in full listed in order of priority. Please see the attached spreadsheet for the 4 potential funding plans: A,B,C,D. These itemize the activities and included remaining funding towards these activities.

| Description (Plan A) | \$ Total Cost | \$ Request | Source of remaining |
|-------------------------------|---------------|------------|---------------------|
| | | from SSC | funds |
| ANCB Studio Lease | \$7,273 | \$7,273 | |
| Studio Activities | \$1,775 | \$1,775 | |
| Group Travel | \$5,175 | \$5,175 | |
| | | | |
| Total: | \$14,223 | \$14,223 | |
| Less remaining studio budget: | - \$5198 | - \$5198 | Student Enrollment |
| Total request: | | \$9,025 | |
| | | | |
| | | | |

- 20. Are you willing to accept a general reduction in your budget? Yes.
- 21. Are you willing to accept line item changes in your budget? Yes.
- 22. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

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