



STUDENT SUSTAINABILITY COMMITTEE

Funding Application – Step II

Funding Criteria

A. General Rules

1. Students, faculty, and staff are encouraged to submit requests for funding. Student-led projects require a faculty or staff sponsor in order to have funds awarded.
2. Funding can only go to university-affiliated projects from students, faculty, staff, and departments.
3. All SSC projects must make a substantial impact on students. This may be a direct impact or an impact through education and engagement. All SSC funding is 100% from student green fees, so the projects funded by the students must benefit them.
4. SSC encourages innovation and new technologies – creative projects are encouraged to apply.
5. Unless a type of expense is specifically listed below as having restrictions, SSC can generally fund it. The items referenced below should not be taken as comprehensive list.

B. Things SSC Can Fund, On A Case-By-Case Basis

1. SSC can fund feasibility studies and design work; however, it must work toward ultimately addressing a sustainability need on campus.
2. SSC can fund staff positions that are related to improving campus sustainability. Strong preference will be given to proposals receiving matching funding from departments and/or plans for maintaining continuity of the position after the end of the initial grant.
3. SSC can fund outreach events with a central theme of sustainability, provided their primary audience is the general campus community.
4. SSC discourages funding requests for food and prizes but will consider proposals on a case by case basis that prove significant reasoning.
5. SSC can fund repairs and improvements to existing building systems as long as it works toward the goal of improving campus sustainability; however, a preference is shown to projects utilizing new or innovative ideas.
6. SSC can provide departments with loans for projects with a distinct payback on a case by case base. Loans will require a separate memorandum of understanding between SSC and departmental leadership pledging to repay the award in full and detailing the payback plan.

C. Things SSC Will Not Fund:

1. SSC will not fund projects with a primary end goal of generating revenue for non-University entities.
2. SSC will not fund personal lodging, food, beverage, and other travel expenses.
3. SSC will not fund any travel expenses.
4. SSC will not fund tuition or other forms of personal financial assistance for students beyond standard student employee wages.

Your Step 2 funding application should include this application, the supplemental budget form, and any letters of support.

Please submit this completed application and any relevant supporting documentation to Sustainability-Committee@illinois.edu. The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the Student Sustainability Committee at sustainability-committee@illinois.edu.

General & Contact Information

Project Name: The Hip-Hop Xpress

Total Amount Requested from SSC: \$119,744.70

Project Topic Areas: Land & Water Education Energy
 X Transportation Food & Waste

Applicant Name: Adam Kruse

Campus Affiliation (Unit/Department or RSO/Organization): School of Music

Email Address: akruse@illinois.edu

Check one:

This project is solely my own **OR**

This project is proposed on behalf of (name of student org., campus dept., etc.):

Project Team Members

Name	Department	Email
Joe Bolton	School of Music	jboltonjobs@yahoo.com
Kevin Erickson	School of Architecture	kne@illinois.edu
Adam Kruse	School of Music	akruse@illinois.edu
Malaika McKee	African American Studies	malaika@illinois.edu
William Patterson	College of Engineering/School of Music	wmpatter@illinois.edu
Tiffani Saunders	African American Studies/Sociology and Anthropology	tsaun2@uis.edu

Student-Led Projects (Mandatory):

Name of Faculty or Staff Project Advisor:

Advisor's Email Address:

Financial Contact (Must be a full-time University of Illinois staff member)

Contact Name: Kim Johnson

Unit/Department: School of Music

Email Address: kkjohns1@illinois.edu

Project Information

Please review the proposal materials and online content carefully. It is highly recommended you visit a working group meeting sometime during the proposal submission process.

Please provide a brief background of the project, its goals, and the desired outcomes:

In homage to George Washington Carver's Jesup Wagon, Dr. Patterson created the Hip-Hop Xpress, a mobile classroom and sound studio that collects, creates and teaches knowledge about Hip-Hop concepts and oral histories. Previous iterations of the Xpress functioned out of converted trailers. This new version is a full-sized school bus. The mission of the Xpress has evolved over the past nine years with the following objectives: (a) prepare P-12 teachers and music education students with practical experience and scholarship for the use of various aspects of Hip-Hop to educate students; (b) collect and share data that reflect how cities in Illinois became archives of Black aesthetic genius with music traditions; (c) show how that content can be used to develop scholarship that connects domestic and international students across all three campuses; (d) build on the success of courses offered by the project directors to demonstrate the strength of cross-disciplinary new knowledge production in arts and humanities; and finally, (e) provide Illinois students with public engagement opportunities to participate in arts and humanities research projects that have the potential to inspire entrepreneurial ventures in Illinois as well as on local, national, and international levels. Operating as a visible instantiation of the power of Black cultural wealth in context, the Xpress will serve as a connector among multiple constituencies. The Xpress will be shared in partnerships with school and community groups in order to build connections among our institutions.

When the Hip-Hop Xpress arrives at a site, its programs will need power. We will have computers and tablets, speaker and lighting systems, and tools for designing and making that all require power. By installing solar panels and other relevant equipment, we can power the programming for the Xpress with renewable energy. Funding will be used to design and execute the bus's construction through low-impact, up-cycled, and reclaimed building materials. Deployable solar generators will be integrated with the bus's power system so as a mobile classroom it will not rely solely on shore-power or its diesel engine to supply the heavy demand for various systems. Lastly, both passive and active temperature control systems will be integrated so energy use is minimized while providing necessary control to protect valuable equipment on board. A shared course among Architecture, Music, and Technology Entrepreneurship students and faculty will meet to design and build the interior of the Hip-Hop Xpress during the Spring 2020 semester.

Where will the project be located? Are special permissions required for this project site?

If special permission is required for this location, please explain and submit any relevant letters of support with the application.

During the Spring 2020 semester, the bus will be parked outside of the Architecture Annex. This will allow for frequent access during the design and build phase. Long term parking for the bus will be at the College of Fine and Applied Arts Design Research Lab on campus.

Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that benefit from this project.

Please attach letters of commitment or support at the end of the application.

We have attached letters of support we obtained for our funding from the University of Illinois President's Initiative to Celebrate the Impact of the Arts and Humanities, from Extension and FAA. Other units directly involved are those supporting the teaching of the class in Spring 2020 (Architecture, Music and Tech Entrepreneurship.) We have extensive ties with the Siebel Center for Design through Dr. Patterson's appointment at a Senior Strategist for Social Impact there.

How will this project involve and/or benefit students?

This includes both direct and indirect impact.

The Xpress team's commitment to ensure the build-out and auxiliary power systems on the bus reflect our Campus's efforts to reduce energy and waste. The Xpress will serve as a concrete and mobile exemplar of sustainable construction and power usage on campus. A team-taught class (among Architecture, Music and Technology Entrepreneurship) in Spring 2020 will directly impact the participants in the class, who will build the bus and propose programming for the Xpress. This course will expose students to the design, construction, and monitoring processes of a built project that employs sustainable design concepts, materials, and energy resources. Once the Xpress is up and running next summer, UI students will have public engagement opportunities that have the potential to inspire entrepreneurial ventures in Illinois as well as on local, national, and international levels. Music education students will gain practical experience in the use of various aspects of Hip-Hop to educate P-12 students. With the requested funding, we can also include teaching about renewable energy in our programming. Students and community members can build miniature versions of clean technology systems alongside building boomboxes, creating and performing music, and exploring cultural histories.

How will you bring awareness and publicize the project on campus? In addition to SSC, where will information about this project be reported?

We maintain a website <https://publish.illinois.edu/hiphopxpress/> where we will post updates, along with sharing news on our social media sites. As a program of attraction, the Hip Hop Xpress team anticipates local press coverage as we visit locations across Illinois to collect and share archives of Black aesthetic genius with music traditions. The activities on campus will be publicized in outreach to educators across the state, at conferences and workshops.

Financial Information

In addition to the below questions, please submit the supplemental budget spreadsheet available on the Student Sustainability Committee [website](#). Submission of both documents by the submission deadline is required for consideration of your project.

Have you applied for funding from SSC before? If so, for what project?

No.

If this project is implemented, will you require any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?

Please note that SSC provides funding on a case by case basis annually and should not be considered as an ongoing source of funding.

We are requesting one-time funding to complete the interior build for this project. The Hip-Hop Xpress project will sustain itself by generating funds through professional development workshops and appearances for schools and community organizations. These funds will make possible the ongoing maintenance and operation of the bus as well as free community programs in areas of need.

Please include any other obtained sources of funding. Have you applied for funding elsewhere?

Please attach any relevant letters of support as needed in a separate document.

We have received \$150,000 from the University of Illinois President's Initiative to Celebrate the Impact of the Arts and Humanities.

Environmental, Economic, and Awareness Impacts

How will the project improve environmental sustainability at the Urbana-Champaign campus? If applicable, how does this project fit within any of the [Illinois Climate Action Plan \(iCAP\)](#) goals?

Using solar panels to power the equipment on the Hip-Hop Xpress will contribute to several goals of iCAP: it will expand on-campus use of solar energy as well as campus-related power usage (off-campus); it will help educate students about solar energy by providing a concrete example of how panels can generate power; in turn, those students can inform their peers and community members who participate in Hip Hop Xpress activities. With solar-powered equipment, we will avoid the use of a diesel-powered generator, which tends to be dirtier per unit of energy produced. We will also practice pollution avoidance: limit idling the bus engine; park in the shade during hot weather if solar panels are not being used; track our energy use not only in running the bus, but also in the equipment we purchase in terms of sustainability so that we can reduce consumption across the project.

Programming will include learning and disseminating core concepts of ecology and sustainability. One possible future Xpress activity may be bike workshops, where used bikes are fixed up and distributed to local communities. The Hip-Hop Xpress can serve as a highly visible catalyst for people across campus to come together around not only Black cultural wealth, but also environmental justice.

If the Hip Hop Xpress is able to power the diesel engine with biodiesel, the bus will also contribute to the iCAP goal of reducing greenhouse gas emissions from campus-owned transportation. Through conversation with the Illinois Biodiesel Initiative (IBI)'s Parker Brand, we have learned that there is great potential to partner with them to supply us with fuel. The additional cost will be negligible, especially considering the likely discounted cost of the fuel from IBI, either 100% biodiesel (B100) or 20% biodiesel (B20). They have kindly offered to advise us through the process.

Since biodiesel is carbon neutral, and around ~22 pounds of CO₂ are produced per gallon of petrodiesel burned, if we were to use 250 gallons (at 4mpg) of fuel to go 1000 miles in the bus, and we used B20, we would avoid 1,100 lbs of carbon dioxide emissions in this hypothetical example. Using biodiesel would not only be cost effective and better in terms of the environment, but also another opportunity for students and other participants to learn about this type of fuel. If we receive funding, therefore, we would formalize our connection to IBI.

How will you monitor and evaluate the project's progress and environmental outcomes? What short-term and long-term environmental impacts do you expect?

Some examples include carbon emissions, water conservation, green behavior, and reduced landfill waste.

Students will be installing a 4200 W flexible solar array system on the buses roof and integrating two 720 W portable solar generators that will provide enough power to cover the bus/ mobile classroom's needs for each outreach event and performance anticipated. With approximately 30 planned yearly, this will have a significant impact on the reduction of shore power or gas-powered generators that are currently used. Students will track energy production and use at each event over the next two years in order to calculate the total amount of energy use and emissions reduction by converting the mobile classroom to a sustainable laboratory.

What are your specific outreach goals? How will this project inspire change at UIUC?

In addition to our sustainable practices, our project will

- demonstrate how our content can be used to develop scholarship that connects domestic and international students across all three campuses.
- demonstrate the strength of cross-disciplinary new knowledge production in the arts and humanities
- demonstrate how students in the School of Architecture Detail+Fabrication Program Area has specialized in building new architectural typologies in urban contexts for public entities through innovative design strategies and pioneering fabrication processes.
- demonstrate how illinois students can create project curriculum and pedagogy to teach sustainability from repurposing their discarded speakers and other audio and tech gadgets.

If applicable, how does this project impact environmental injustice or social injustice?

The Hip-Hop Xpress increases environmental stewardship both on and off campus through the use of solar systems and sustainable building materials. These are systems that are often not recognized as innovative in under-resourced communities in Illinois, even though these very communities “make a way out of no way” using many environmentally responsible approaches. It is (past) time to recognize their leadership in these efforts. Other residents who may be unfamiliar with these options will benefit from more information about upcycling, solar, and reclamation of materials.