

# The Carol A Borcherding NSCSAS Garden for Growth

##### Grant Type:

Mini Grant

##### Application Type:

Final Application

##### Project Manager 1 Name:

Alanis Dilic

##### Project Manager 1 Status:

Student

##### Project Manager 1 Email:

alanisd@arizona.edu

##### Project Manager 1 Department:

NSCS Student

##### Project Manager 2 Name:

Famesh Patel

##### Project Manager 2 Email:

fameshpatel@arizona.edu

##### Project Manager 2 Status:

Student

##### Project Manager 2 Department:

NSCS Student

##### Project Manager 2 Role:

Back-up

##### Project Advisor Name:

Dr. Julie E Miller

##### Project Advisor Email:

juliemiller@arizona.edu

##### Project Advisor Department:

Neuroscience

##### Fiscal Officer:

Jennifer L Lawrence

##### Fiscal Officer Email:

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##### Fiscal Officer Department Name:

Neuroscience (2534 - School of Mind, Brain & Behavior)

##### Requested Funding Amount

Only enter this number after completing the budget sheet (the budget template will round up your request).
Mini Grants may request $250 up to $5,000.
Annual Grants may request $5,001 up to $100,000, and up to three years of funding.

#### Year 1:

$366

#### Year 2:

#### Year 3:

##### Official Project Name:

The Carol A Borcherding NSCSAS Garden for Growth

##### Primary Project Category:

Natural Environment

##### Secondary Project Category:

Food

##### Background and Context:

Please provide relevant background about your organization/team including your mission and/or expertise. Lay out the rationale for the proposed project, focusing on the issue that your project would address. This section is meant to give us more information about you and the context for the project, while the questions below provide space to go into detail about your proposal's plan and specifics.

###### Response:

The Neuroscience and Cognitive Science Association of Students (NSCSAS) is a student-run undergraduate club at the University of Arizona. NSCSAS fosters a tight-knit community of students - brought together by a shared passion for neuroscience and cognitive science - in an effort to aid aspiring members in networking with faculty and developing professional skills. Although NSCSAS is one of the largest College of Science organizations on campus, we welcome all interested students - regardless of major, class, or program - and aim to provide social, outreach, and professional opportunities for our members and give back to the Tucson community. The Carol A. Borcherding NSCSAS Garden for Growth was formed over three years ago by former NSCSAS President Cameron Bolles in an effort to bring the neuroscience and cognitive science community together, help students develop landscaping and gardening skills, reflect on their personal growth, and call attention towards the current global climate crisis. Each semester, the NSCSAS organizes two gardening events - one at the beginning of the semester and one near the end. Specifically, during the fall semester, the NSCSAS team strives to hold an opening garden event - typically at the beginning of September - to introduce new members to our garden plot, plant autumn/winter flowers and vegetables, share tips on maintaining gardens without overwatering, and painting rocks/materials to represent the club. From here, each officer and intern of the NSCSAS checks on the plants every-other-week to ensure that they have germinated and are faring well in the given weather. Any and all weeds are also pulled out, and water sprinklers are checked. At the beginning of December (the first weekend), NSCSAS holds the final garden event for the semester and all sprouted flowers and vegetables are harvested. Any and all vegetables that were successfully harvested would be sent to Campus Pantry. An identical schedule structure is arranged during the spring semester as well, with the first event being held during the first weekend in February, and the final event being held before finals week.

##### Project Description:

Please provide a thorough description and explanation of your project. Be explicit in what your team is proposing. What are the goals of your project? What will your project’s outcomes be? Outcomes should be SMART—specific, measurable, achievable, realistic, and timely. Describe how each objective will be achieved with the anticipated timeframes for each, including any key dates for when certain elements must start or be completed.

###### Response:

The core goals of the Carol A. Borcherding NSCSAS Garden for Growth stemmed from the endeavor to bring the neuroscience and cognitive science community together for an ecological and environmentally-focused event. Due to recent circumstances, the purpose of the NSCSAS garden has also shifted to draw support for Campus Pantry, in addition to calling attention to the current climate crisis. As a result, the current NSCSAS garden plot enables participants to learn more about garden care, proper compost methods, as well as the accessibility of seed resources for members of the Tucson community. As mentioned in the Background & Context section of this application, the NSCSAS organizes two gardening events - one at the beginning of the semester and one near the end. Specifically, at the first garden event, the NSCSAS team strives to introduce new members to the Campus Garden, its staff and corresponding organizations, as well as the garden plot the NSCSAS currently holds. Seeds are then planted according to the time of year and plan of harvest, and the NSCSAS officers share tips on maintaining gardens without overwatering, as well as protecting various crops. Finally, new members are encouraged to paint rocks/materials to leave a legacy of their involvement in NSCSAS as well as their efforts to support students facing food insecurity and sustainability efforts. This year, we also plan to install a garden shade fabric to provide additional shade for our garden, as well as a mesh against common garden pests. As the primary and secondary project managers, Alanis Dilic and Famesh Patel have been coordinating with each NSCSAS officer to check on the state of the garden and its water sprinklers every two weeks. At the end of each semester, we will measure the degree of its success by recording the number of attendees at the final harvest. We facilitate a round-table discussion where members reflect on their semester - many of which will be finishing their first semester of undergrad. We cover what we are grateful for, what we were able to accomplish as an organization, in addition to our individual accomplishments. The board also collects feedback that members may have for the club for future semesters, and formulates plans for individual growth for next semester. The NSCSAS is applying to the CSF Mini-Grant because our expenditures have increased beyond expectation due to the opportunity to send ten of our students to the Society for Neuroscience conference - which is located in Washington D.C. this November. In addition, we have exhausted our ASUA funding for T-shirts. It is our hope, with the financial aid of the CSF Mini Grant, to maintain and improve upon our new garden bed and support our growing organization.

##### Budget Narrative:

Use this section to provide supplemental justification for the items you are requesting on your budget sheet. Please break down your justifications into the budget categories: Personnel or operating budget. Do not list out each expense or repeat notes made in the budget template, but instead address why the line items are being requested and the purpose they will serve, providing elaboration when necessary.
If you are requesting funding for personnel, use this section to elaborate on the position you are creating and how the budget and timeline was established for it. If you plan to hire students, describe in what capacity. Describe relevant details thoroughly (wages, responsibilities, duration of job, extent of involvement, how you will solicit/ market these opportunities etc.).
Ensure the descriptions match the line items in the budget sheet.
If matching or supporting funds are secured for the project, identify the source and amount in this section, and detail the impact of the matching funds on your overall budget.

###### Response:

Our campus garden project has recently undergone significant changes, including a switch to a new garden bed with unexpected challenges. In this budget narrative, we will delve into our funding requirements and the rationale behind our proposed investments. These elements are crucial to our mission of providing fresh produce for the campus pantry. The first item that we would like to purchase is Organic Wiggle Worm Fertilizer: to support the healthy growth of our plants in this new environment, we anticipate needing one package of fertilizer each semester, totaling $50 per year. The fertilizer will be applied every 2-3 weeks, ensuring optimal nutrient supply for our crops. Upon previous experimentation, the NSCSAS has found this fertilizer to be particularly effective in promoting vegetable growth. The next long-term investment would be in UV Shade Fabric. Acknowledging that our garden bed is less shaded than preferred, we plan to invest in UV shade fabric to mitigate the effects of increased sunlight exposure on our plants, ensuring their vitality and growth throughout the year. The third item within our budget includes a Garden Netting Barrier. In tandem with our shade fabric, we are requesting funds for a garden netting barrier fabric to encircle our garden bed, preventing unwanted intrusion and damage to our crops. As detailed in our winter and spring reports, we have had numerous pests attack and hinder the growth of our crops. This garden netting barrier would come with wide hoops that can be attached to the fabric and ensure that our entire garden bed is safeguarded from potential threats, without the need for metal wire fences. Mulch Mixture is another essential investment, as an ongoing issue we have identified is water retention in our garden bed, exacerbated by certain sections receiving less water due to irregular supply. To address this, we have researched a specific mulch mixture to enhance water retention. We anticipate replacing this mulch at each garden event to maintain optimal conditions for plant growth. The final item on our budget is the annual garden bed aid: our garden bed serves as the heart of our project, allowing us to grow fresh produce for campus pantry and engage the community in sustainable practices. Unfortunately, we have exhausted our ASUA funding with our Society for Neuroscience conference trip to Washington D.C. in addition to t-shirts. Furthermore, the Neuroscience department solely financially supports the NSCS Ambassadors. This Mini-Grant would enable the continued growth of our project, as our budget is tailored to address the unique challenges presented by our new garden plot. Through the allocation of funds for fertilizer, shade fabric, protective measures, and specialized mulch, we are confident in our ability to maintain a thriving garden that fulfills our mission of providing fresh produce for the campus pantry. All quotes were confirmed with our program director and are the best possible estimate.

##### Project Feasibility and Logistics:

The Campus Sustainability Fund will only fund projects that have completed the necessary work to ensure they can succeed, be completed in the grant’s timeline, or have an accurate budget.
Please provide a description of the work that has been completed so far to make this project feasible. Have all relevant partners been contacted/coordinated with? Have you received consent or authorization to complete your project (such as from Housing and Residence Life, Facilities Management, Parking and Transportation, etc.)? Please identify them in your response.
If you are making modifications to campus, do you have authorization or official quotes from Facilities Management to accurately identify the cost of labor and supplies?

###### Response:

Within the first stages of our project, former Project Manager and NSCSAS President Cameron Bolles contacted the garden manager at the time and discussed potential methods of owning a garden plot for the NSCSAS. At first, he didn't think this event was possible considering we had to pay for a plot, tools, seeds, and additional resources. However, after discussing the quotes for a potential garden plot, the cost to renew garden plots in the upcoming semesters/years, as well as the events that occur within the Community Garden, Cameron and the Community Garden Managers agreed upon a two-third length bed, as this was the only way we would be able to support this recurring event financially. Fortunately, with the aid of the CSF Mini-Grant last year, we have been able to move to a full-sized sunny plot and purchase paint for rocks, as well as stakes to mark planted slots, new gloves and fertilizer. Historically, our funding has come from the various fundraisers that the NSCSAS has held throughout the years. However, our expenditures have increased beyond expectation due to the opportunity to send eight of our students to the Society for Neuroscience conference - which is located in Washington D.C. this November. In addition, we have exhausted ASUA funding for T-shirts. It is our hope, with the financial aid of the CSF Mini Grant, to maintain and improve upon our new garden bed and support our growing organization. The NSCSAS has held five successful garden events so far, and we have a great relationship with the garden staff. NSCSAS has grown by over thirty percent since this gardening event began, and we would like to maintain our bed size to accommodate all the new interest! This year, we have gained new interns to the NSCSAS board that want to get involved with the community garden and expand the project. There is a lot of motivation, however, unfortunately the limitations are monetary expenses in addition to limited shaded-garden plots, which would aid our project. For this year’s budget however, we intend to invest in long-term items such as UV fabric and pest barriers to improve the quality of growth of our vegetables. All quotes were confirmed with our program director and are the best possible estimate. The support of the CSF Mini-Grant would enable the continuation of the NSCSAS’s sustainability venture with its future community and club leaders.

##### Environmental Sustainability Outcomes:

Please provide a description of how you expect your project to advance environmental sustainability on campus. A definition of environmental sustainability is provided on our Guides and Tips page.

###### Response:

Here it should be acknowledged that the NSCSAS aims to create and promote community awareness of responsible environmental behavior, in addition to elaborating on the effective management of resource consumption - particularly regarding water and energy - in order to reduce waste and greenhouse gas production and improve air quality. Further, the NSCSAS has worked with the UofA’s Compost Cats to properly compost decomposed organic matter and we direct all interested students to their respective resources. Our connection to Compost Cats aids in students understanding the various benefits that come from composting. From enriching soil, to retaining moisture and suppressing plant diseases/pests, as well as reducing the need for chemical fertilizers, the UofA Compost Cats has aided NSCSAS in informing members about garden care and environmental sustainability. Because we live in an urban environment, the UofA’s Community Garden is one of the few projects that students can advocate, actively participate in, and learn more about the vital role of environmental sustainability, as well as increasing student awareness of the garden and its associated projects. To quantify our environmental sustainability outcomes, the NSCSAS will record the amount of vegetables given to Campus Pantry in pounds, in addition to quantifying the number of unique students being impacted by Campus Pantry. Furthermore, our organization would continue to note the number of members attending the garden events.

##### Social Sustainability Outcomes:

Please provide a description of how you expect your project to advance social sustainability on campus. A definition of social sustainability is provided on our Guides and Tips page.

###### Response:

The primary aim of NSCSAS is that we strive to provide a support network for all members in the pre-health community. Our member base is primarily made up of underclassmen; however, it also includes transfer, international, students with English as a second language, individuals living away from home for the first time, and students coming from underserved populations. Things as simple as learning the layout of campus has been a difficulty for our executive board, which is an added benefit of having our event at a location that many of our members are unfamiliar with. In addition, the Campus Pantry is a source of social sustainability that gives to under-served populations within the university community to further promote inclusion. Our collaboration with Campus Pantry aids in educating members about sustainable practices to incorporate into the wider university community. In essence, the NSCSAS serves as peer support and advisement with professional advisor oversight, and the Campus Garden has been a core event that allows us to bring our group together while having the excuse to get outside and briefly relieve the stresses of being a full-time or part-time student. To improve on our efforts from last year, we intend to collaborate with the Tucson Fire Department - as one of their stations has a garden headed by survival experts - and learn more about environmentally sustainable practices and gardening tips. This collaboration with the Greater Pima county community will enable officers, interns, and members to learn why certain vegetables would be ideal for certain times of the year, in addition to being more mindful of the resources used to grow these plants. Another initiative Famesh Patel introduced this year is a cooking class social event, where the NSCSAS would share recipes and present quick and easy ways to prepare healthy, low-cost meals with new students. Several of our returning members have shared their gratitude to Campus Pantry and their accessibility to it, and would like to learn more about healthier meal preparations using such ingredients.

##### Student Leadership & Involvement:

Please provide a description of how your project will benefit students on campus regarding the creation of leadership opportunities or student engagement. What leadership opportunities exist within your proposal? If you plan to seek student involvement, include relevant details thoroughly and how you will solicit/ market these opportunities.

###### Response:

For the past three years, the NSCSAS garden plot has connected students with the UofA’s community garden program, as well as the goals of Campus Pantry. Although we do not plan to hire any students for a formal job position, we use the campus garden as one of the main events to train our interns. NSCSAS interns are second, third, and fourth semester students that hold their position for the duration of an academic semester. The administrative side of event planning, logistics, emailing garden managers, and maintaining other responsibilities, all serve as the foundation that interns are given before we give them the opportunity to create an event of their choosing during their time as an intern. Further, we use the “garden planning” as a reference for how they should operate and delegate responsibilities across our executive board.
For instance, the NSCSAS interns are encouraged to take initiative in the leading garden planting and social events, such as the new Earth Day event for Spring 2023. Our two gardening events educate members about the different environmental impacts they can make on campus, by partnering with the garden itself. It is through this partnership and the NSCSAS’s social events, that the NSCSAS provides Campus Garden with additional social media exposure. This CSF Mini-Grant would aid in creating additional opportunities for student leadership and involvement through the initiative on expanding the knowledge of fellow members, interns, and officers on sustainable agricultural/gardening practices in a unique way, outside of other leadership positions in a major such as Neuroscience.

##### Education, Outreach, and Behavior Change:

What opportunities does this project provide for members of the campus/community to learn about sustainability? How will your project educate the campus community and/or incorporate outreach and behavior change, particularly beyond the "sustainability choir?"
Please provide a description of how you expect your project will communicate its impacts to the campus community.

###### Response:

One of the main opportunities that our project provides to encourage campus/community awareness regarding sustainability stems from our immense support of the UA’s Campus Pantry - the primary source of food for many students on campus. Each semester, over half of our seeds are eligible donations to Campus Pantry, and it is through the increase in NSCSAS membership that we would like to provide new students with opportunities to plot and produce more eligible donations and be more informed of the variety of environmentally-sustainable methods for their own gardens. In addition, we compost other plants/materials from previous garden plots and use our general meeting platforms - such as Instagram, and our NSCSAS email which reaches the entire NSCS student list - to spread the word on campus sustainability, both within the campus and for various student efforts that our executive board is exposed to by social media. Further, it is through our gardening events and social media platform that we are able to aid in the awareness of Campus Pantry’s resources and support as a basic needs center for under-served students. Through these events, new members are encouraged to paint rocks/materials to leave a legacy of their involvement in NSCSAS as well as their involvement with efforts to support students facing food insecurity as well as practicing our responsibility of environmental sustainability. As outlined in the Social Sustainability section, a new initiative that Famesh Patel introduced is a potential cooking class social event, where we would use some of our harvested vegetables to prepare healthy, low-cost meals with new students. Several of our returning members have shared their gratitude to Campus Pantry and their accessibility to it, and would like to learn more about healthier meal preparations using such ingredients. In this sense, we aim to scale up our education, outreach, and behavior changes through this new initiative, in addition to the Fire Department collaboration detailed in the Social Sustainability section.