

Program Summary:

Brief Program Description

The Austin College Center for Environmental Studies requests \$4,000 to support Texas Essential Knowledge and Skills (TEKS)-aligned prairie field trips for 3rd through 5th grade students during the 2017-2018 academic year. Field trips will be offered to school districts in Grayson County, Cooke County, and Fannin County.

The Sneed Prairie Field Trip Program, which just welcomed its 10,000th visitor in October of 2016, provides an opportunity for teachers to immerse their young students in a wild setting as they learn about prairie ecology and their own connections to the natural world in general.

In order to make the program compatible with all of the demands on today's elementary school teachers, all activities were specifically designed to align with TEKS objectives. Teachers are provided with an array of preparation and follow up materials, so they can be primed to help their students better engage with material covered during field trips and make the most of the field trips with subsequent classroom activities.

Amount requested: \$4,000

Community and/or constituency served

The schoolchildren that visit come from a range of backgrounds and areas in North Texas. The closest schools have a 6 mile drive to Sneed Prairie, while the majority of schools are as far as 40 miles away. As an example of the range of districts engaged, one school visits from Sadler – population less than 400 – and others visit from Sherman – population 40,000. Although a good portion of students visit from rural or farming communities, their past interactions with the natural land around them are often still strikingly limited.

On average, 58% of students from each of the participating schools are considered economically disadvantaged. Also, since 2002, greater than half of the teachers who have visited the Sneed Prairie with their students reported that transportation reimbursement is critical to being able to visit the site. Each school is given the opportunity to be reimbursed for their transportation costs.

Expected outcomes

We expect 700 or more schoolchildren will benefit from the activities in the Sneed Prairie Field Trip Program in the 2017-2018 academic year. This program can serve as a model to other colleges or universities conducting restoration or conservation projects by engaging and educating local youth.

Implementing a TEKS-based curriculum, participating students will improve their understanding of scientific measurement and reasoning, organisms, and environments as detailed in the TEKS program through hands-on fieldwork and experimentation in a living laboratory.

Section I: Contact Information

a. Grant application contact:

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b. Name and Address of Organization

Austin College
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c. Tax ID Number: 75-0827409

Section II: Organizational Description

a. Overview

Austin College, a private national liberal arts college located north of Dallas in Sherman, Texas, has earned a reputation for excellence in academic preparation, international study, pre-professional foundations, leadership development, committed faculty, and hands-on, adventurous learning opportunities. Founded in 1849, the College is the oldest institution of higher education in Texas operating under original name and charter.

The Austin College Center for Environmental Studies offers Texas Essential Knowledge and Skills (TEKS)-aligned field trips to its Clinton and Edith Sneed Environmental Research Area and Prairie Restoration site located approximately 10 miles west of Sherman. Since spring 2002, Austin College has hosted 37 schools from four counties, and more than 10,000 students.

Section III: Program Description

a. Community and/or constituency need

With shrinking school budgets and rising costs, field trips can be some of the first activities cut from a school's budget. Seasoned educators, however, recognize that these trips are some of the most beneficial learning activities for today's students. The Sneed Prairie TEKS-aligned field trips teach children about prairie ecology, the region's land use history, and ecosystem restoration through hands-on activities, data collection, and experiments.

Since 2002, The Sneed Prairie Field Trip Program has been a cost effective option for a high-quality educational field trip within close proximity to school districts in Grayson County, Cooke County, and Fannin County. Each year, Austin College seeks grant support or gifts from generous donors to reimburse school districts for the cost of transportation. Past surveys of teachers indicate that greater than 50% of schools cannot participate if the cost of bus transportation is not reimbursed.

b. Program Description and primary goals

Since 2002, Austin College has hosted more than 10,000 students from 37 schools and nearby counties at its 100-acre Clinton and Edith Sneed Environmental Research Area and Prairie Restoration. On average, more than 700 students participate in the field trip program each academic year. The program depends on advanced, trained undergraduates to serve as leaders for each of the 15 - 25 field trips that take place annually.

The first goal of this program is to provide TEKS-aligned field trips that teach schoolchildren about tallgrass prairies and their restoration through hands-on activities, data collection, and experiments. The field trips focus on the ecology of the Blackland Prairie of Texas, regional land use history, and techniques of prairie restoration. During a hike schoolchildren learn about the history of the prairie, native plants and animals, and the importance of prairie management for species conservation, water supplies and quality, and soil fertility. Schoolchildren take breaks from the hike for hands-on activities such as seeing how many species they can find within a hula hoop, spreading native seeds in disturbed sites, mimicking the trampling activity of herding bison to plant the seeds, and simply stopping to observe the sights, sounds, and fragrances of their surroundings. In addition to the hike and hands-on activities, the students have lunch at the property's McCarley Pavilion, where they have a chance to see the components of its solar power and rainwater collection and treatment system. They also observe a rainwater runoff demonstration that illustrates the effects of native grass cover on water infiltration and runoff. While exploring Sneed Prairie, students use their field notebooks to help them retain concepts and recall processes; all supplies are provided by field trip leaders. TEKS-aligned Lesson Plans for after the Field Trip are available to download from the Austin College website. The TEKS-aligned materials for the field trips were designed by students pursuing a master of teaching degree in the Austin Teacher Program at Austin College.

The second goal of this program is to provide a first-hand teaching experience to Austin College students. The field trips are led by advanced Austin College undergraduates who have been selected based on their participation in the Prairie Restoration January Term course or another biology course. Schoolchildren receive a field notebook where they record notes and answer questions relevant to the TEKS standards. These students have not only deepened their knowledge of tallgrass prairies and ecology, but have gained valuable experience in informal public speaking and environmental education. Several alumni of the program are now educators, and others have embarked on other environmental careers.

c. Program Participants or beneficiaries (How many people will the program serve?)

We measure the progress and success of this project by the number of students involved and affected. Outside of the 1,000+ students, staff, faculty, and volunteers to be involved in the larger prairie restoration project, roughly 70 Austin College students have been involved as environmental educators as leaders of the field trips. Since the program's establishment in 2002, dozens of local elementary teachers have visited the Sneed Field Trip Program and,

most importantly, as of October 4, 2016 over 10,000 school children have participated this experience. Various types of schools that attend including public schools, private Christian academies, homeschooled groups, a high school agriculture class, and Montessori programs.

d. Describe unique or innovative aspects of the program, how the program is a model for other communities, how we will communicate program's success to other communities

The Sneed Environmental Research Area is a unique educational resource in North Texas, where Austin College faculty and students are restoring tallgrass prairie to the former Sneed family farm. Introducing students to the Sneed Prairie offers an exciting and innovative way for students to acquire essential knowledge in both science and social studies, in line with the goals set forth in the TEKS Program. Implementing a TEKS-based curriculum, participating students will improve their understanding of scientific measurement and reasoning and organisms and environments as detailed in the TEKS program through hands-on fieldwork and experimentation in a living laboratory. Participating students will also acquire greater understanding of Texas history and geography as detailed in TEKS by learning about the history of the prairie, human migration and settlement, and agricultural development.

Although the Sneed Prairie is unique to this area, this model of providing a TEKS-curriculum and student field notebooks for hands-on learning is certainly applicable and transferrable to other locations. We will use social media and communication and coordination with teachers to publicize this model to other schools throughout rural Texas

The trips are specifically designed to fit flexibly into teacher's schedules and curricula. Before arriving for their trip, each teacher receives access to preparation and follow-up activities that supplement and augment the material learned during the excursion. A 20 minute video - Blackland Prairie: Past, Present and Future, a worksheet to use with it, and a packet for teachers including a detailed background of the blackland prairie is provided as preparation for the field trip. We also provide lesson plans for a range of post-field trip activities that apply what students have just learned to areas such as graphing, narrative writing, social studies, water systems, and life sciences objectives of the Texas Essential Knowledge and Skills.

The program primarily benefits the schoolchildren and their teachers, but is also valuable for the field trip leaders. Biennially, Dr. Peter Schulze, Professor of Biology and Environmental Science and Director of Center for Environmental Studies, offers a hands-on prairie restoration course at Sneed. After that course the best students are invited to become field trip leaders. Thus, the program provides our college students with opportunities to develop their communication and teaching ability. We have also noticed that schoolchildren are excited and inspired by the chance to learn from and interact with a "real college student".

We believe that this program is exemplary, because it activates the most important part of our restoration project: connecting youth to the ideas and efforts of environmental appreciation

and responsibility. Creating a culture of conservation among those who will eventually take over as stewards of the land is integral to long term success. The program stands as an example for other colleges or universities conducting restoration or conservation projects by engaging local youth in the efforts that involve college students, faculty, volunteers, non-profit, government, and community based organizations.

e. Budget (full program budget and specific use of grant funds)

Sneed Prairie TEKS-aligned field trips	Budget
<i>Field Trip Program Service Delivery Costs</i>	
Bus Expense Reimbursements (estimated \$115/trip x 20 trips per year)	\$2,300
Program Coordinator (200 hours @ \$25+fringe/hour per year)	\$5,383
Student Guides (4 guides x \$12/hr for 4 hrs x estimated 20 trips per/year)	\$4,134
Mileage reimbursement for student guides & coordinator (30 miles @\$.505/mile x estimated 20 trips/year for both guide and coordinator)	\$606
First aid supplies (4 x \$100)	\$400
EpiPens (4 x \$250 each) Required first aid supplies in case of anaphylactic shock	\$1,000
<i>Marketing Costs</i>	
Postage and supplies for 225 invitations	\$110
Field Notebooks & Other Tools	\$1,070
<i>Prairie Restoration</i>	
Native plant seed	\$1,000
Total	\$16,002

Amount Requested from TRC	
Grant funds will be used specifically to reimburse schools for bus transportation expenses, first aid supplies, EpiPens, marketing to schools, and native plant seeds, if funds available.	\$4,000

If TRC is unable to fund the total amount requested, Austin College would accept a smaller grant.

f. Expected Outcomes or accomplishments and how to measure these outcomes

Unlike the hands-on restoration work done by students and volunteers at Sneed, the field trip program does not necessarily make direct or immediate improvements to the environment. However, the program does serve as a model for the development of future conservationists and land stewards, which has indirect benefits for the local community and our environment in the long term. As everyday interactions with nature decrease, a program like this (especially in Grayson County, where similar opportunities are scarce), which allows students to interact with and learn to appreciate the natural world, are increasingly important in cultivating societies that are environmentally conscious. Many students have asked if they can bring home native grass and wildflower seeds to plant at their own homes; when possible, we do send those seeds home in hopes of supporting this idea of individual, and ultimately community driven, conservation.

We expect 700 or more schoolchildren will benefit from the activities in the Sneed Prairie Field Trip Program in the 2017-2018 academic year. We will track the number of students, classes, schools, and school districts that participate.

After each trip, teachers will complete surveys. The surveys ask questions such as (1) would you agree that the trip was worthwhile experience? (2) would you recommend this opportunity to another teacher? (3) Was your leader effective? (4) was the curriculum material valuable? and (5) how important was it that Austin College reimbursed your school for the cost of transportation? We will track the responses to these questions and use those responses to refine subsequent field trips, as we have done for years.

g. Timeline for program and expenditure or proposed grant funds

Grant funds will be used to support field trips in the 2017-2018 academic year. Field trips are offered during the fall and spring according to Austin College's academic schedule.

h. Austin College has not received a grant from TRC in the two preceding years.

2) Attachments

- a. List of Board of Directors
- b. IRS Determination Letter
- c. Current fiscal year budget, balance sheet, 1 page profit/loss statement
- d. Letters of Recommendation (limit 2)