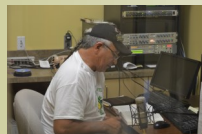




# Nebraska Indian Community College Newsletter



KZYK 88.9  
Jim Hallum

## Inside This Edition

2018 Student of the Year	1
Connecting the Dots	2
NICC Food Project	3,6,11,14
GED Testing Center/ Sacred Fire	4
About NICC	5
AIHEC Conference	7,8,9,10,
NICC Programs Offered	12
Summer Courses	13
Faculty of the Year	15
Thank you Veterans	15
CNAs/Smile	16
General Assistance Pro- gram Visits NICC	17
NICC Libraries	17
Science Professor Hon- ored by Class	18,19
GED/Employees Working Toward Degrees	20
NICC Students Present at Nebraska Academy of Science Conference	21,22
Omaha Tribe and Francis La Flesche	23



*The Nebraska Indian Community College provides higher education and lifelong educational opportunities for the Umo'ho, (Omaha), Isanti (Santee Dakota) and other learners.*

## NICC Names Cornelia Farley Widow Student of the Year



Nebraska Indian Community College named Cornelia Farley Widow Student of the Year for the American Indian College Fund scholarship. Cornelia will receive her scholarship and be recognized at a banquet held in Bismarck, ND, during the American Indian Higher Education Consortium Student Conference March 11 – 14, 2018.

Cornelia Farley Widow has proven herself a leader in the Isanti Dakota community in Santee, NE, by taking charge of cleaning up an artesian well. The work on this project has gained interest from USD and several mem-

bers of the Isanti community who live in or near Santee, NE. Cornelia says, “The well had been used as a trash dump, so we cleaned it up to honor the water. This spring we are going to remove some of the invasive weeds and plant some native plants to the area and willows.”

Cornelia applied for the scholarship to support her completion of her Associate of Science degree at Nebraska Indian Community College. Cornelia is planning to transfer to USD and is planning to become a teacher of environmental sciences. Cornelia is an outstanding role model to her peers. She has assisted with many on campus activities included Santa Days where the Head Start and Kindergarten through Second Grade children come to Nebraska Indian Community College to receive a gift.

## Connecting the Dots



Nebraska Indian Community College and University of Nebraska extension Thurston County partnered to host a two-day event called Connecting the Dots program in Walthill and Omaha Nation school on February 15<sup>th</sup> at the Walthill Fire Department. The Connecting the Dots Program, which is an interactive career exploration simulation program, is designed to help ninth/tenth grade students learn more about careers of interest as well as how to “connect the dots” from ninth grade through postsecondary study to the workplace.

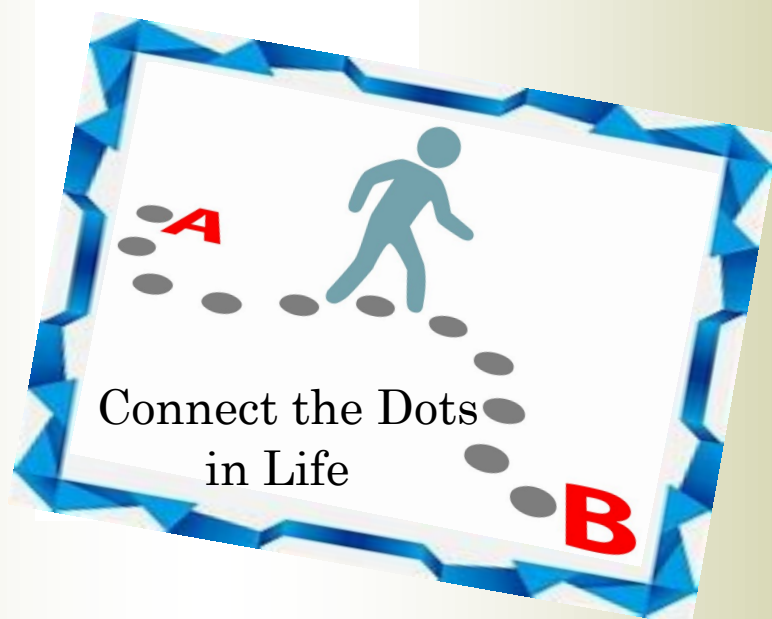
54 students from Omaha Nation and Walthill Public School attended on the 15<sup>th</sup>. The stu-

dents had the opportunity to network with local employers as ask questions that they had about specific careers.

Students participated in career readiness sessions including: Resume Building, Real Colors, and Knowdell Motivated Skills Card Sort.

There will be another Connect the Dots program for Santee and Niobrara school in April. This program is coordinated by the Nebraska Extension in Thurston

County and Nebraska Indian Community College, in cooperation with community professionals.



**NICC Mentioned in First Nations newsletter and website** <http://indiangiver.firstnations.org/nl180304-07/>

## NICC & Partners Expand Food Project's Reach



Coming together with partners can often help stretch valuable resources for a project, but it can also amplify and improve the outcomes of the project itself. That's what happened in northeast Nebraska when **Nebraska Indian Community College** joined forces with the **Omaha Tribe**, the **Santee Sioux Tribe** and the **Center for Rural Affairs** to get more bang for the buck on a food sovereignty assessment effort.

Nebraska Indian Community College (NICC), a federal land-grant institution since 1994, serves the Omaha Tribe of Nebraska at its Macy Campus, and the Santee Sioux Tribe of Nebraska at the Santee Campus. It also has a campus site in South Sioux City, Nebraska, according to Mike Berger, NICC grantwriter.

In keeping with its commitment to serve the two tribal nations, NICC was one of the recipients of grants awarded to 39 Native American tribes and organizations to help them conduct food sovereignty or community food assessments in their various locales, from 2016 to 2017. First Nations Development Institute (**First Nations**) provided the grants, totaling nearly \$650,000, under its Native Agriculture and Food Systems Initiative, with generous support from the W.K. Kellogg Foundation and the Indigenous People's Fund of Tides Foundation.



Continued on page 6





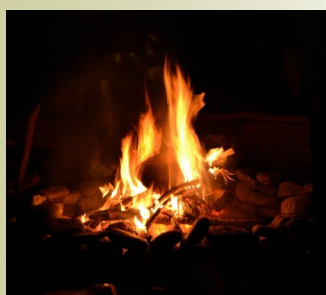
Since May 22, 2015, Nebraska Indian Community College, Santee Campus, has been an authorized Pearson Vue Test Center for GED candidates.

Pearson VUE believes testing and certification is at the heart of the learning experience, and Nebraska Indian Community College will play its part by offering accessible and secure testing to candidates.

Pearson VUE's advanced system administers exams on behalf of hundreds of businesses, boards and organizations around the globe through the world's largest most secure test center network. The system enables candidates to register and reschedule their tests online at [ged.com](http://ged.com) or through a Pearson VUE call Center like Nebraska Indian Community College.

For more information about the GED Testing at NICC contact Wanda Henke at 402-241-5939 or [whenke@thenicc.edu](mailto:whenke@thenicc.edu).

## Sacred Fire Movement



"Fire is a gift from the creator: It is a made manifest in a humble way. We are approaching it in a kind, humble way for help to stop this battle of bad spirit drugs, locally, as well

as in native country; the burning of the fire through prayer and encouragement. Unity as one, one prayer, one mind, one heart, for happy healthy lifestyles in Indian country." *MHA spiritual leader*

*April 19-22, 2018, Santee*

Throughout the days of the sacred fire there was a talking circle. Some sat around the fire and sang prayer songs, Most came to pray and get some healing from the fire. This fire

was lit to promote healing, awareness and unity amongst our people. With this sacred fire our people, women, children, and those in need, will be protected using our culture and traditions.

Pidamiya to all the people that gave their time and efforts to complete the four days of the fire. If this helped at least one person then it has served it's purpose. The Sacred Fire will happen again in the fall. If you wish to come and join at that time. There will be notices to when we will lite up again.



## Nebraska Indian Community College

For the past 40 years, the Nebraska Indian Community College (NICC) has been and remains dedicated to planting the seeds of knowledge through unique and cultural relevant educational experiences. Our aim is to provide you with a quality learning experience and to equip you with the skills and knowledge that you will need in the profession of your choice. These experiences are geared toward all Umonhon (Omaha), Isanti (Santee Dakota), and other learners attending classes at one of our three campuses. NICC is open to all who are willing to enhance and improve their lives.

NICC is accredited by the Higher Learning commission of the North Central Association of Colleges and Schools.

Macy (S.Campus)	Santee (W.Campus)
1111 Hwy 75	415 North River Rd.
Macy, NE 68039	Niobrara, NE 68760
402-494-2311	402-494-2311

So.Sioux City (N.Campus)  
2605 1/2 Dakota Ave.  
So.Sioux City, NE 68776  
402-494-2311

We're on the web!  
[www.thenicc.edu](http://www.thenicc.edu)

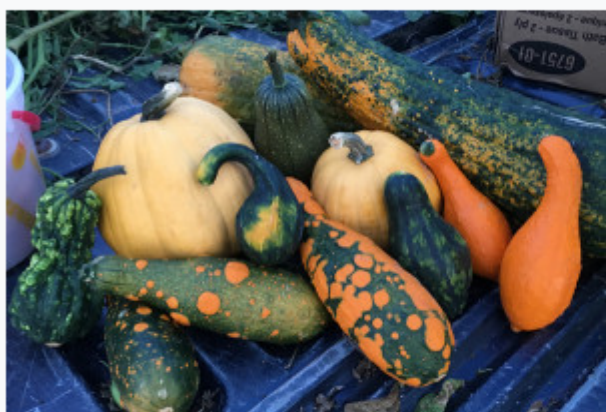
The Right Direction



## NICC Mentioned in First Nations newsletter and website <http://indiangiver.firstnations.org/> continued from page 3

The grant allowed NICC to partner with the Santee and Omaha tribal governments and programs, and the Center for Rural Affairs (CFRA) located in Lyons, Nebraska, to carry out activities to encourage community participation in the food sovereignty assessments. Berger is the grantwriter for NICC and the grant manager with the project.

### Expanding Reach



"We serve 170 students at three locations, and have less than 10 faculty members. We're a very small tribal college and without partnering we couldn't have implemented a food sovereignty project. We have limited staff, and partnerships with this project greatly expanded our reach into our communities," said Berger.

The tribes, NICC and CFRA first held group and individual discussion groups to talk about the food sovereignty projects for both tribes, and the goals of gaining a "broader understanding of the current Santee Sioux and Omaha food

systems, and how to build interest and support" from the communities being served, according to their project report to First Nations.

Information was shared at several locations in each tribe's community, including the Omaha Pow Wow Committee meetings, Omaha Advisory Health Fair, the Santee Health Center, and the Walthill library, to name a few.

Surveys were handed out to community members at various events, and were gone over one to one at some events like the Rosalie Old Settlers Days, the Santee Health Center Diabetes Program's Greek salad cooking class, and the Omaha tenant education class.

### In-Person Activities Important

While social media was used to get initial information out to the communities, it was the activities that were held in person that were the most successful when talking about food



— NICC's campus demonstration garden

Continued on page 11

## NICC Students Attend American Indian Higher Education Student Conference in Bismarck March 11-14, 2018

The American Indian Higher Education Consortium (AIHEC) is the collective spirit and unifying voice of our nation's 37 Tribal Colleges and Universities (TCUs)—a unique community of tribally and federally chartered institutions working to strengthen tribal nations and make a lasting difference in the lives of American Indians and Alaska Natives. Since 1973, AIHEC served its network of member institutions through public policy, advocacy, research, and program initiatives to ensure strong sovereignty through excellence in American Indian higher education.

At the 2018 AIHEC Student Conference, each of the 37 AIHEC institutions were represented by a broad array of students, faculty, and staff from the tribal nations throughout the United States. Five Nebraska Indian Community College students were among the individuals attending the conference. Students engaged in competitions designed to foster strong academic future leaders of Indian Country and serve as a national gathering and training ground for native youth.

The following is a narrative about one student's recollection of this year's conference.

*My experience at AIHEC was a memorable one. I am very thankful to the college and the chaperones that accompanied us there. Seeing and taking part in the American Indian Higher Education Consortium student conference was amazing to say the least. And to have received the student of the year award was great! Din'e College was celebrating 50 years, 50 years! That is amazing, knowing they were the college that was the pioneer to the Indian colleges today. To see all the students taking part in Archery, Knowledge Bowls, Science Bowls, Hand games and many other activities was a sight to see. Being that I as my first year doing this and doing archery I was just so proud of myself that I hit the targets! I am so proud to be part of the Indian community colleges and to take part in the AIHEC student conference, I just wish that I had more time to study the materials to help the team advance in the rounds but what great fun. If there are students out there that are thinking about joining AIHEC in the semesters coming I say, "do it!". Lots of fun and making friends from afar. Memories that I will cherish. Thank you again Nebraska Indian Community College for the opportunity to participate, so what can I say I had fun. Cornelia Farley-Widow, NICC Student*



## AIHEC Student Conference Pictures





## More AIHEC Pictures





## More AIHEC Pictures





## NICC Food Project continued from page 6

sovereignty and getting surveys, which in the end numbered more than 500 participants total for both tribes.

"The survey established and identified what we need to address and the interesting pathways that we are looking at delving into for the delivery of vegetables – such as mobile 'veggie vans' and working with the tribes to develop a delivery system for people who request fresh vegetables. At the local grocery store, vegetables are imported, but with a mobile grocery store – that could create a market for area farmers," said Berger.

The idea of mobile "veggie vans" would not only provide access to fresh produce, but also fill in the transportation gap that many tribal members experience on both reservations. Even if someone has access to a car, they face an hour or longer drive, one way, just to reach the nearest big-box store. Add on the cost of gas and car upkeep, and this often puts a trip for fresh produce out of the reach for many tribal members.



— Jelly workshop demonstration

In addition to creating access to healthier fresh fruits and vegetables, the surveys indicated there is a strong interest in revitalizing the growing of traditional foods within the existing community gardens and providing access to traditional foods to community members who can't grow their own.

"The communities would like to see a Native seed bank happen, where seeds and roots stocks can be reintroduced. But instead of sending out seeds, keep it in the community and then they own stock in community," said

Berger.

### Traditional Foods Draw Interest

There were some traditional foods that drew a large interest in terms of learning how to grow or access the foods, and how to prepare the traditional dishes.

"Venison, squash and corn were the top three traditional foods requested by survey participants, so for us as a college, we're interested in what types of foods the community members are interested in. It's also good for us to find out what local farmers were interested in cultivating," said Berger.

CFRA oversees farmers' markets on behalf of both tribes and there is a great interest by both the food producers and consumers to have access to more locally-grown foods. In addition, interest in family or community gardens and container gardens has been on the increase for the past few years in both tribal communities. CFRA works with both tribes and offers garden technical assistance for the challenging growing conditions. In 2017 alone, there were nearly 300 requests for support.

Continued on page 14

## NICC PROGRAM OFFERED

### Programs Offered

**Associate of Arts–  
Business Administration  
or  
Business Administration  
with Entrepreneurship  
focus**

Designed for students who plan to continue their studies in a business oriented area such as administration, marketing, accounting, management, finance. Students select from one of two tracks, either Business Administration or Entrepreneurship Concentrations. This program offers a variety

of business courses that permit students to select a business major at a four-year-college of their choice or to learn skills that will allow them to establish their own business.

**Associate of Arts–  
Human Services**  
Designed to provide students with knowledge and applications of the human services field. With a focus on applications in Native communities, this program prepares the students for work in

various human services and counseling careers or further study toward a four-year degree.

**Associate of Arts–  
Native American Studies**  
Designed to provide students with a foundation in Native American issues and concerns with a special emphasis on Isanti (Dakota) and Umo"ho" (Omaha) cultures, as well as increasing knowledge base about the reservations and tribal governance. NAS majors select from one of two

areas of concentration: History and Traditional Culture or Contemporary Tribal Leadership.

**Associate of Science–  
General Science Studies**  
Designed to provide students with foundational knowledge of science with an emphasis in Natural Resources/Environmental Studies, Plant Science, Human Health Science, Math, Chemistry, or Physics. This will allow students to transfer their work to a four-year college.

**Associate of Arts–Early  
Childhood Education**

Designed to provide students with knowledge of pre-school children. Courses leading to this emphasis is designed to prepare the students for work in childcare and various governmental agencies. This program is also designed to provide sufficient general education courses to promote transfer into a four-year degree programs for education.



**Associate of Arts–  
General Liberal Arts**  
Designed to provide students with a learning foundation in written and oral communications, the social and behavioral sciences, and the humanities. While the A.A. degree in General Liberal Arts offers opportunities for personal growth and career advancement, it is primarily designed to allow students to transfer their qualifying credit hours to a four-year college. The A.A. degree in General Liberal Arts is for students interested in fields in the humanities such as literature, history, art, music and in the social sciences including

political science, sociology, education and legal studies.

**Associate of Applied  
Science - Carpentry**  
Designed to provide students with knowledge and skills needed for employment as a carpenter. Students will study residential and commercial construction. All phases will be explored and applied on a job site or in the lab. Related coursework includes blueprint reading, math, construction costs, cost and material, and small business operations. Graduates of the carpentry program may be employed in general carpentry work, commercial carpentry

fields, or specialize in one particular area such as a finish carpenter.

**NURSE AIDE**  
Designed to provide students with a state-approved certification that meets the Nebraska Health and Human Services System requirements for nurse aid certification and employment in long-term care facilities. Upon completion of the program, students are eligible to take the state written and practical skills exam.

**Associate of Arts–  
Paraeducator/pre-teaching  
education** Designed for NE paraeducator, substitute teacher or pursue K-12 certified teacher

Nebraska Indian Community College

## NICC Spring Course Schedule



### REGISTER NOW!!

A number of our courses this summer will allow for flexibility, with both online and blended (part online and part on campus formats)



## NEBRASKA INDIAN COMMUNITY COLLEGE

Summer 2018 Course Schedule (May 29-July 3)

COURSE #	COURSE NAME	CR	INSTRUCTOR	DAY	TIME	VTC/Campus
BIOS 2300	Intro to Environmental Issues	3	H. Miller	5/29, 5/31	8:00AM-9:00AM	BLENDED (Online with 2 meetings) VTC 3 Science Lab
BSAD 1040	Personal Finance	3	L. Henke	T, Th	5:00PM-6:00PM	BLENDED (Online with 11 meetings) VTC 2
BSAD 2700	Business Law	3	L. Henke	M,T,W,Th	9:00AM-11:30AM	VTC 2
BSAD 2900	Business Internship	3	J. Proctor		ARRANGED	
INFO 0900	Keyboarding	2	T. Grant	Self-Study	Arranged	Santee Computer Lab
INFO 0900	Keyboarding	2	J. Kodian	Self-Study	Arranged	SSC Computer Lab
INFO 0900	Keyboarding	2	M. Robertson	Self-Study	Arranged	Macy Computer Lab
CHEM 2990	Chemistry Internship	3	D. Weatherman		ARRANGED	
CNST 2900	Special Topics: Field Safety & Orientation (OSHA Training)	2	K. Urquidí	5/29, 7/2	Noon- 2:00PM	BLENDED (Online with 2 meetings) Santee VocTech
CNST 2900	Special Topics: Field Safety & Orientation (OSHA Training)	2	K. Urquidí	5/31, 7/3	9:00AM-11:00AM	BLENDED (Online with 2 meetings) SSC North Room
CNST 2900	Special Topics: Field Safety & Orientation (OSHA Training)	2	K. Urquidí	5/31, 7/3	2:30PM-4:30PM	BLENDED (Online with 2 meetings) Macy VocTech
CNST 2990	Carpentry Internship	3	K. Urquidí		ARRANGED	
ECED 1160	Early Language Literacy	3	J. Hahn		ONLINE	
ECON 2120	Principles of Microeconomics	3	J. Proctor	M,T,W,Th	11:45AM-2:15PM	VTC 2
EDUC 1010	Student Success Strategies	2	Z. Brummels	M,T,W,Th	Noon- 2:00PM	VTC 3 Computer Lab
EDUC 1711	Praxis Core	1	TBA		ARRANGED	
ENGL 0900	English Skills	3	Z. Brummels	M,T,W,Th	9:00AM-11:30AM	VTC 3 Computer Lab
ENGL 1010	English Composition I	3	P. Page	T	2:30PM-4:45PM	BLENDED (Online with 6 meetings) VTC 2
ENGL 1020	English Composition II	3	S. Brasch		ONLINE	
ENGL 2900	Special Topics: Elder Stories	3	C. Sherman	5/29, 5/31, 6/21, 6/28, 7/3	11:45AM- 2:15PM	BLENDED (Online with 5 Skype meetings)
HIST 2900	Special Topics: Intro to Archives & Records Management	1	TEAM	TBA		Macy Campus

HLTH 1020	First Aid & CPR	1	S. Brasch	M, W	2:30PM-4:15PM	BLENDED (Online with 9 meetings) VTC 2
HLTH 1040	Gardening	1	S. Kosola	T & Th	10:00AM-11:30AM	Santee Campus
HLTH 1040	Gardening	1	D. Hair	T & Th	10:00AM-11:30AM	SSC Campus
HLTH 1040	Gardening	1	L. Snake	T & Th	10:00AM-11:30AM	Macy Campus
HMSV 2990	Human Services Internship	3	TBA		ARRANGED	
MATH 0900	Developmental Math Lab	1	TBA	M,T,W,Th	9:00AM-10:45AM	VTC 1
MATH 1110	Intermediate Algebra	4	A. Wldrowicz	M,T,W,Th	11:00AM-2:30PM	VTC 1
NASP 1070	Native American Genealogy Research	3	TEAM	M,T,W,Th	2:30PM-4:45PM	VTC 3 Computer Lab
NASP 2900	Special Topics: Conversational Omaha-Ponca for Beginners	1	TBA	July 16th-20th	Omaha-Ponca Language Institute at Macy Campus	
NASP 2900	Special Topics: Methods for Teaching Omaha-Ponca	1	TBA	July 16th-20th	Omaha-Ponca Language Institute at Macy Campus	
NASP 2900	Special Topics: Spelling and Pronunciation of Omaha-Ponca	1	TBA	July 16th-20th	Omaha-Ponca Language Institute at Macy Campus	
NATR 2900	Special Topics: Artesian Well Restoration	1 or 3	H. Miller		ARRANGED	
NATR 2990	Natural Resource Internship	3	H. Miller		ARRANGED	
NURA 1110	Nurse Aide		D. Storm	4/25- 6/30	TBA	Macy VocTech
PHYS 1100	Physical Science	3	D. Weatherman		ONLINE	
PHYS 1104	Physical Science Lab	1	D. Weatherman	M, W	5:00PM-7:00PM	VTC 3 Science Lab
PSYC 2030	Developmental Psychology	3	TBA		ONLINE	
SPCH 1110	Public Speaking	3	P. Page	Th	2:30PM-4:45PM	BLENDED (Online with 5 meetings) VTC 2

3/5/2018



## NICC Food Project continued from page 11

"The community gardens have really started taking off. Also, cooking and canning workshops are offered so we can better educate the community on food safety, drying and canning," said Suzi French, Community Food Specialist with CFRA and an Omaha tribal member.

Berger added that often it is hard for people to imagine that there are food inequities or food deserts in their part of the country, as "here we're surrounded by corn, but it's all feed for cattle."

The food sovereignty assessments have already had a great impact on the Omaha and Santee Sioux tribal communities and the Nebraska Indian Community College, Berger added. The assessments now provide the groundwork and direction for further community-developed proposals to address such areas as the seed bank, how the college fits within food sovereignty, and the overall impact on the health and wellness of all the communities.



### NICC Graduation

*Santee Community Schools*

*206 Frazier Avenue E.*

*Santee, Nebraska*

*May 19, 2018*

*10 am*

## 2018 NICC Faculty of the Year Announced



The 2018 NICC Faculty of the Year is Hank Miller. Hank Miller is an NICC faculty member and the Math/Science Division Head at NICC. He teaches the Life Science classes and the entry level Math classes.

His undergraduate degree is from Wayne State where he received a Bachelor of Arts in Education and his graduate degree is from South Dakota State University where he received a master's degree in Biological Science with an emphasis in Ecology. He has taught at NICC for fifteen years, and before that, taught in the K-12 school systems for twelve years. Hank works with several science grants and serves on a variety of advisory boards related to science

and math. Hank's greatest passion is teaching his students about human and environmental health and how each one of them can make a difference in shaping their future world.



Mr. and Mrs. Leland Henke donated the United States flag, Nebraska flag, and MIA/POW flag for the NICC Santee Campus flag poles,

This is to recognize all veterans, including Henke family members, son Michael who served with the National Guards, Leland US Army (Viet Nam), Amos Henke (father, grandfather) US Navy—USS Flint, Pacific Campaign, World War II, Robert Salmonson (Wanda's brother) US army, Harry Lovgren (Wanda's uncle) World War II, Reynold Thompson (Wanda's uncle) World War II, and also John Nickerson (Leland's great-grandfather) served with Wisconsin 1st Cavalry, Civil War.

*Nebraska Indian Community College  
Graduated 38  
Certified Nursing Assistants  
From Summer 2017 to Spring 2018*



AmazonSmile — You shop. Amazon gives.

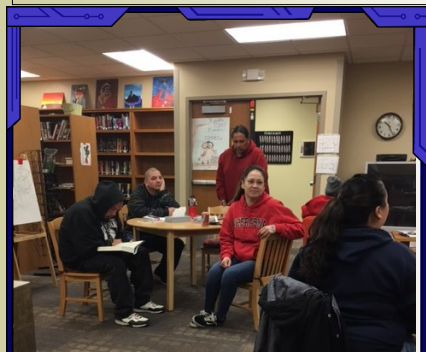
When you shop at [smile.amazon.com](https://smile.amazon.com), Amazon donates to your favorite charitable organization.

Please remember Nebraska Indian  
Community College when using Amazon  
Smile.





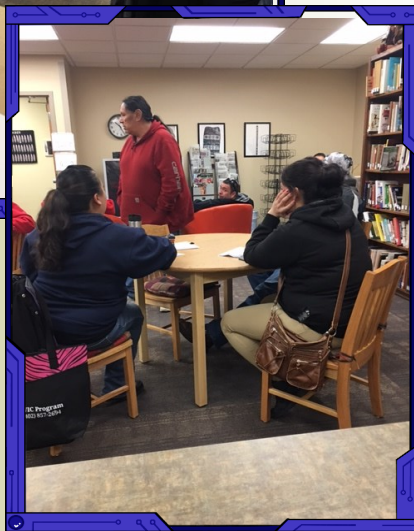
## Making Use of NICC Santee Campus Library



Lorraine Smith, General Assistance Program, Dakota Tiwahe Service Unit, and her group visited the Santee Campus Library. Those in attendance set up e-mails to be utilized in applying for jobs in the future.

Santee Sioux Nation with particular attention to the needs and empowerment of its members who are vulnerable, oppressed, and living in poverty.  
<http://santeesiouxnation.net/dtsu.html>

The primary mission of the Dakota Tiwahe Service Unit is to enhance the well-being and meet the basic human needs of the members of the



## Science Professor Hank Miller Honored by Class



### Tribute to Hank

There are times in our lives when we cross paths with those who touch our hearts in an unknown way. They inspire us to keep our eye on the goal encouraging them not to give up. The passion, caring, and drive motivates students to follow their hearts, walking that path towards future destinations, always there to lend that helping hand, advocate, inspire, encourage and care.


Hank, it is with grateful hearts that we celebrate, extending our deepest most heartfelt gratitude for all you have done for us. We are so lucky to have had teachers that go above and beyond. You certainly fit those shoes well. Your dedication to the students show what an outstanding example you are to the community and the world. Aldo Leopold once said, "Conservation is a state of harmony between men and land." Although that harmony remains displaced in our modern society, you strive to inspire others to help make that positive impact that Mother Nature is asking for. You have given us valuable tools to do our part in making that happen. Thank you from the bottom of our hearts in helping us realize our own dreams.





## Science Professor Hank Miller Honored by Class





Make the year you achieve your **2018** dream

Don't wait any longer. Make this the year your dreams become a reality when you pass the **GED®** test.

**Call 1-402-241-5939**

*GED 2016 copyright*

David Frazier will be completing his MBA from Bellevue University in May.

Jackie Hahn completed 18 hours Master in Early Childhood Education.

Chello Sherman will be graduating with an MFA in creating writing in May.

**NICC EMPLOYEES FURTHERING EDUCATION**

Vanessa Hamilton completed a Bachelor's degree at USD and is currently working on Post-Baccalaureate degree in Teacher Education from UNL

Nichole Parker is completing Masters in Indigenous Law Studies from Oklahoma University.

Carlton LeCount will be starting his PhD at UNL this fall.



## NICC Students Travel to Nebraska Academy of Science Conference



On April 20<sup>th</sup>, NICC's NASA Fellow Research students presented their "Environmental Monitoring Through Native Prairie Restoration" research poster at the Nebraska Academy of Science Conference in Lincoln Nebraska. NICC students listened to a variety of other scientific research presentations from other Nebraska colleges.

For participating in this NASA, Nebraska Space Grant sponsored nine-month research program, students receive stipends and scientific research experience. NICC poster presenters

were Shelley Kosola, Corey Widow, Lorraine Smith, Marcus Redwing and Aleisa LaBelle. NICC math and science faculty mentors include: Dasha Weatherman, Lavonne Snake, Qudsia Husaini and Hank Miller.

NICC's NASA Research Fellowship project is a long-term research project that focuses on how weather influences fauna and soil development under native prairie restoration processes and conditions. By comparing weather data with plant inventories, plant morphology, soil health,

and future bird and mycorrhizae studies, successional changes, and rates of increased biodiversity in this ecological setting should be able to be determined.

Continued on page 22

# NICC Students Travel to Nebraska Academy of Science Conference continued from page 21



## Environmental Monitoring Through Native Prairie Restoration

Shelley Kosola, Aleisa LaBelle, Marcus Redwing, Lorraine Smith & Cornelia Widow,  
Hank Miller-Faculty Mentor  
Nebraska Indian Community College



### Abstract

This long-term research project will collect and compare local weather data, with biological markers within our Native Prairie Restoration Project at our Santee Campus. The biological markers come from: satellite images, weekly time lapse photography, plant inventories and soil analysis. All this will be done while implementing our native prairie restoration management plan. We hope to gain knowledge about how weather influences biodiversity and successional changes by examining the fauna and soil composition under these management conditions.

### Introduction

This long term research focuses on how weather influences fauna and soil development under native prairie restoration processes and conditions. By comparing weather data with plant inventories, plant morphology, soil health, and future bird and mycorrhizae studies, we hope to be able to determine successional changes and rates of increased biodiversity in this ecological setting.

This thirteen acre research area was tilled and seeded to a variety of native grasses and forbes; with the goal of reestablishing as many native plant species as possible. By increasing native plant diversity, we feel soil health and organism diversity will follow.

### Study Area

The 13 acre research site below is located in Santee Nebraska at the Nebraska Indian Community College campus site. The research area consists of five plots that are located north and west of the college campus; with our weather station directly south of campus.



WS 2-2307  
©2017 NASA. This map was created by a contractor for the National Science Foundation and is not intended for use in navigation. The National Science Foundation is not responsible for any errors or omissions in this map. The National Science Foundation is not responsible for any errors or omissions in this map.

### Objectives

- 1.Plant and implement management plan to establish native prairie study area.
- 2.Monitor and collect fauna and soil data utilizing photography, plant inventories, soil testing.
- 3.Compare weather data to fauna and soil data.
- 4.Through statistical analysis, show successional ecological changes

### Methods

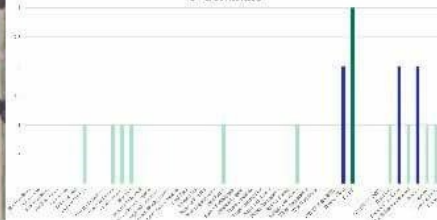
**Native Prairie Planting:** The 13 acre research site was a 15 year alfalfa field. The site was tilled twice and seeded in late May of 2017. More than 30 different native grass and forbes species were planted with a no till seeder.

**Management:** First year planting, second (current year) and third year mowing and then yearly rotations of grazing and mowing while burning every fifth year. Management applications will be administered in late April.

**Research Plots:** The research area consists of five plots. Plot 1 has no management and will act as our control. No chemicals have been used or will be in the future. (see study area satellite image)

**Data Collection Protocol:** Study paths were created for each plot where photograph, plant inventory and soil testing data are to be collected. Each plot's study path starts in the corner of the plot and goes to the center post point of the plot. **Photographs** are taken weekly from the corner of each plot, 6' high and with minimum magnification, centered on the center post of each plot. These photographs will be used for plant inventories and yearly time lapsed photo reels. **Plant Inventories** will be done in June and September each year utilizing photographs and observations from walking along each plot's 15' wide study path. Plant species will be documented into three categories: **traces**-plant species observed but over 15' apart, **moderate**-2-5 of plant species within 15' and **dominate**-6 or more of plant species within 15'. **Soil samples** will be collected within a 15' radius of center plot post and chemical analysis completed in June and September of each year. **Weather data** will be downloaded and collected daily. All data will be analyzed at end of year.

Diagram 1 - Plant Inventory, 1=trace, 2=moderate, 3=dominate



### Results

With limited data at this point, it would be premature to make conclusions, but research protocol and baseline data has begun and with the accumulation of future data, trends and results will start to surface.

#### Current Data:

**Weather:** This data will show the monthly averages of temperature, precipitation, and soil moisture from April of 2017 to

**Plant Inventories:** Diagram 1 shows plot 1 plant species occurrence and population strength in September of 2017.

**Soil Analysis:** Diagram 2 & 3 shows soil analysis and % of base saturation of our plot soil samples from September of 2017.

Diagram 2, Soil Analysis

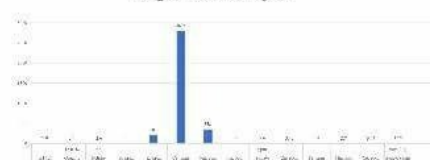
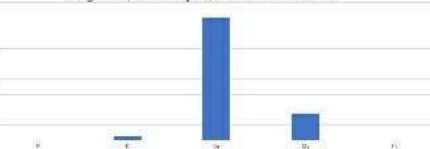


Diagram 3, Soil Analysis, % of Base Saturation



### References

NOAA- National Climate Data Center, [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov), High Plains Regional Climate Center, [www.hprcc.unl.edu](http://www.hprcc.unl.edu), Nebraska State Climate Office, [www.nsco.unl.edu](http://www.nsco.unl.edu), NEON- [www.neonscience.org](http://www.neonscience.org), Savory Institute- [www.savoryinstitute.org](http://www.savoryinstitute.org), Society for Range Management- [www.rangelands.org](http://www.rangelands.org), Ecological Society of America- [www.esa.org](http://www.esa.org).

### Acknowledgements

We would like to thank NASA, Nebraska Space Grant, NOAA, High Plains Regional Climate Center, Nebraska State Climate Office and Nebraska Indian Community College for all their help with this project.



## Guest From Berlin, Germany, visits the Omaha Tribe

Last April, Elisabeth Seyerl from the Ethnological Museum of Berlin made a trip to Macy, NE. The reason was to talk with Francis LaFlesche's relatives.

More than a 120 years ago the Berlin Museum appointed Francis La Flesche to collect items portraying Omaha life and culture. All of the accumulated artifacts along with the La Flesche relative interviews will be shown in an exhibition in 2020 in Berlin.

Elizabeth was presented with a shawl from Nebraska Indian Community College Professor of Omaha Tribal History Wynema Morris with the help of Vanessa Hamilton.



FRANCIS LA FLESCHÉ

**Born:** Dec. 25, 1857 Omaha Reservation, NE

**Died:** Sept. 05, 1932

Francis La Flesche was the first professional Native American ethnologist who worked with the Smithsonian Institution. He specialized in Omaha and Osage cultures. Working closely as a translator and researcher with the anthropologist Alice C. Fletcher, La Flesche wrote several articles and a book on the Omaha, plus more numerous works on the Osage.

Francis La Flesche picture. Courtesy of the National Anthropological Archives, Smithsonian Institution. Photograph No. 4504.