WE ARE AS STRONG AS THE DDAY EDS THAT MADE US.

2017 ANNUAL REPORT

ANAJO TECHNIC

CNIVERSIT

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BOARD OF REGENTS (Below)





(L-R): Roland Begay, Delores Greyeyes, Harry Claw, Roselyn John, Carolyn Morris (Not Pictured): Tom Platero

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(L-R): Billy Jo Black, Deirdra Deswood, Jermando Lee, Roland Begay, Jarrett Jones

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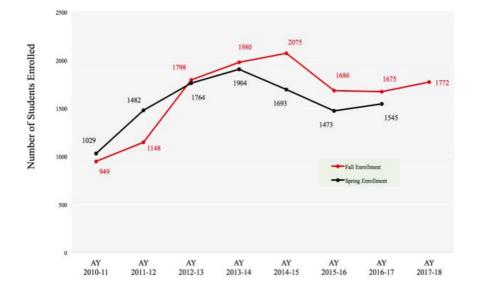
WELCOME TO NAVAJO TECHNICAL UNIVERSITY

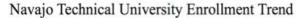
At the heart of the tribal colleges and universities (TCU) movement is a promise. The idea, early in the movement's history, was that by having tribal control of higher education, not only would individual students succeed at a higher rate, but tribal Nations would also gain facilities and expertise that would, over time, result in cultural strength and a better economy. The tribe would improve as a result of a growing number of highly educated tribal people who would provide a better living for their families. The tribally controlled institution of higher learning would create an economic transformation that would help further tribal self-determination and fulfill the prayers of our ancestors to one day thrive in the modern world, while holding strong to our language, culture, and traditions.

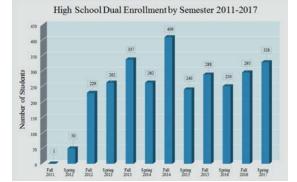
In 2017, Navajo Technical University made exciting strides toward fulfilling the long-term promise inherent in the founding of Navajo Skills Center in 1979. Since then, a growing stream of students have graduated with baccalaureate and masters degrees. Students have continued the tradition of exemplary performance in a number of certificate and degree areas. Projects that have been building capability and infrastructure for over ten years are on the cusp of making a significant impact on the economic future of the Navajo people. New degrees have been introduced in response to Navajo needs. More programs have achieved national specialty accreditation. Plans for future growth in support of the Navajo people have been moved forward. Exciting building projects have been launched, and NTU is positioned nicely to leverage its resources to improve the quality of life of individuals throughout the Four Corners region.



SERVING A REGIONAL NEED FOR HIGHER EDUCATION

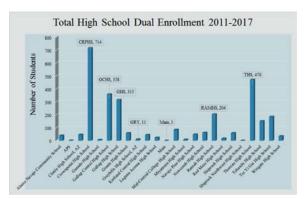






Dual enrollment allows NTU to extend its impact to high school students so by the time they graduate they're familiar with the rigor of college coursework, while also earning credit toward a higher education degree or certificate.

With locations in Crownpoint, NM and Chinle and Teec Nos Pos, AZ, NTU serves the higher education needs of the Four Corners Region. Part of the good news about the year is that the slow erosion in our student population that had been a concern the last couple of years ended. The growth in student population was small, as the chart to the left indicates; however, NTU has seen a great increase in dual credit participation (see below). There is still a challenge with enrollment at the instructional sites in Chinle and Teec Nos Pos. This has been identified as a focus for the 2017-2018 academic year.



COLLEGE

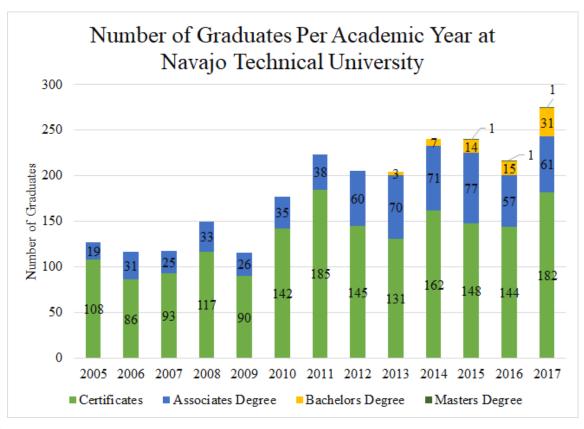
AN INSTITUTION 7 INSTITUTION COMPARISON

Although NTU's overall graduation rate is below that of the nation's institutions of higher learning, a comparative analysis looking at the rates of other colleges and universities in this area is as follows:

NTU	DINÉ COLLEC
Annual Cost	Annual Cost
\$3,821	\$8,153
Graduation	Graduation
Rate	Rate
28%	9%

UNM-GALLUP Annual Cost \$7,500

> Graduation Rate 8%



At the 2017 fall commencement 14 students earned baccalaureate degrees and 1 student earned a masters degree. Not too long ago if 20 Navajos earned a baccalaureate degree in a single year the entire Navajo Nation would have seen that as a significant accomplishment. At the 2017 spring commencement 17 students earned baccalaureate degrees and another student earned a masters degree. This means 2017 saw 32 NTU students earn advanced degrees. Growth is still needed if the Navajo Nation is to achieve parity with other U.S. communities in the percentage of its population with earned degrees, but progress toward this goal is well underway. Note that this chart does not include the full numbers for 2017 since fall graduation has yet to happen.

OF GRADUATION AND TUITION RATES

WESTERN NEW MEXICO

Annual Cost \$11,636 Graduation Rate **21%**

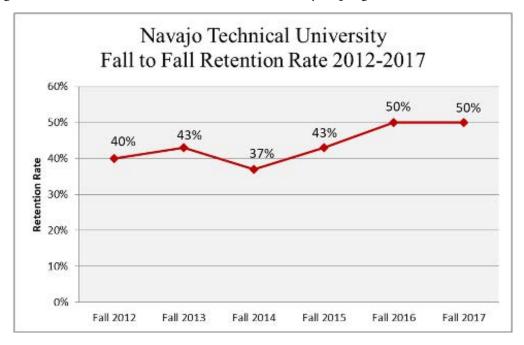
NM HIGHLANDS
Annual Cost
\$6,971

Graduation Rate **18%** SAN JUAN COLLEGE Annual Cost \$5,245

Graduation Rate **13%**



The financial audit for FY 2016 was unqualified for the fifth year in a row and had zero audit findings for the third year in a row. This puts NTU in excellent standing with our funding agencies, especially the U.S. Department of Education and our accrediting body, the Higher Learning Commission. The audit for FY 2017 is currently in progress.



Retention of students still remains a serious challenge at NTU as our rate hovers around 50%. This is true in all of the TCUs and mainstream colleges and universities serving American Indian students. Comparatively NTU does relatively well. But as a rural, tribal institution, we still have a lot of work to do in addressing the individual needs of our students in order to ensure persistence and success. As we become more financially secure, we should be able to operate more efficiently and effectively in meeting student needs.

2017 FINANCIAL STATEMENTS

STATEMENT OF REVENUES, EXPENSES & CHANGES IN NET POSITION		2016		2015	
Revenues					
Tuition & Fees (Less Scholarship Allowance)	S	550	S	1,096,576	
Other Operating Revenues		2,765,699		2,645,281	
Grants & Contracts		30,088,528		27,561,863	
Interest Income	-2	2,903	35	3,719	
Total Revenues	S	32,857,680	S	31,307,439	
Operating Expenses		26,685,744	31	28,080,954	
Change in Net Assets	s	6,171,936	S	3,226,485	

NTU's financial statements indicate an increase in total revenues and a decrease in operating expenses (left). NTU has also seen an increase in total assets (right). Each could be used to help improve the student experience at NTU.



TEEC NOS POS INTRUCTIONAL SITE

NTU is dedicated to continuing development of the instructional site at Teec Nos Pos. Enrollments, however, have been extremely low, so efforts have been initiated to improve the site's performance. The administrative structure has been changed, work has been started with the Ute Mountain Tribe in an effort to strengthen enrollment, and new curriculum offerings are being researched. The most challenging problem is hiring faculty because of a lack of housing in the area around Teec Nos Pos. Access to resources has been another challenge, which has allowed the University to be creative in how it operates. In Teec Nos Pos, for example, carpentry students (*above*) were used to help build a new electrical trades lab at the site by pairing development with service-learning.

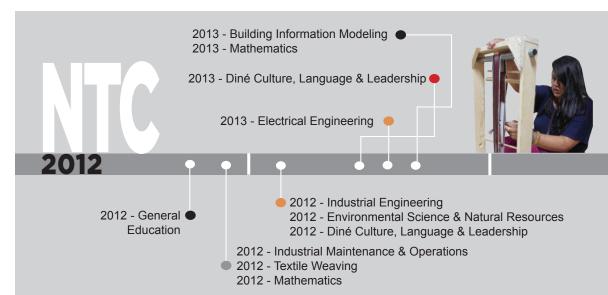
BALANCE SHEET		2016		2015
Current Assets		2010		<u>2010</u>
Cash	S	5,825,498	S	4,345,170
Grant Receivable		5,914,345		3,422,350
Other Current Assets	89	3,031,290	<u></u>	3,333,008
Total Current Assets	S	14,771,133	S	11,100,534
Noncurrent Assets				
Restricted Cash		4,588,456		4,585,552
Capital Assets, Net	2.	25,857,737	2.7	21,339,885
Total Noncurrent Assets	<u>s</u>	33,446,193	S	25,925,433
Total Assets	S	45,217,326	S	37,025,971
Liabilities & Net Assets				
Accounts Payable	S	1,333,358	S	1,361,703
Deferred Revenue		4,726,304		2,324,714
Other Current Liabilities		1,704,922	30	1,087,357
Total Liabilities	S	7,764,584	S	4,773,774
Net Assets				
Invested in Capital Assets	S	25,857,737	S	21,339,88
Restricted for Endowment		4,585,552		4,583,914
Unrestricted	81	7,009,453	-	6,328,398
Total Net Assets	<u>s</u>	37,452,742	S	32,252,19
Total Liabilities & Net Assets	S	45,217,326	S	37,025,97
Days Cash on Hand		87		6

IMPROVING OUR ROLE AS A TRIBAL UNIVERSITY



Students from NTU's first Navajo Transcription cohort take notes during a class lecture in NTU's hooghan.

As a tribal university, it is NTU's obligation to operate in a manner that has mindful regard for the communities we serve. NTU has developed several programs over the last several years that address the economic needs of communities across the Four Corners region, and programs have been developed to meet the needs of the Navajo Nation. In 2017, NTU received approval from the Higher Learning Commission (HLC) to offer a Certificate in Navajo Transcription (*above*) and a Certificate in Law Enforcement (*right*). An associate degree in Engineering Technology was also approved to help support an emerging industry in advanced manufacturing, as was a baccaulaureate degree in Biology.



DEGREE AND CERTIFICATES DEVELOPED AT NAVAJO TECH IN THE PAST 5 YEARS

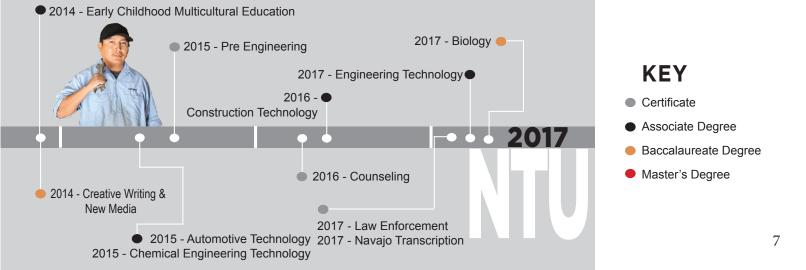
THE NAVAJO POLICE ACADEMY

The HLC approved offering a Certificate in Law Enforcement in Chinle, which is the first step in creating a Navajo Police Academy, a partnership between NTU and the Navajo Police Department and the Division of Public Safety. A temporary campus, with temporary housing, was largely completed near Public Safety facilities in Chinle and an Academic Coordinator for the Academy was hired. Classes are scheduled to start in January 2018 for the first recruits. So far 18 potential officers have been enrolled.

Planning for the Police Academy also continued during the year. A curriculum map for an associate degree that will help Arizona officers or recruits advance their careers and/or become officers in New Mexico was largely completed. As soon as the first graduating class of officers in the certificate program occurs that degree will be submitted to the HLC. In New Mexico the state requires that officers earn an associate degree in addition to the certificate that allows them to be initially hired as officers. This should also, over time, improve the skills of the Navajo Police force.

The academic planning process for two baccalaureate degrees, one in Criminal Science and one in Forensic Engineering, both to be located in Chinle, were also launched. The development of a degree in Forensic Engineering would move the Navajo Police Academy to the frontline of such academies in the United States.





A YEAR FOR NATIONAL ACCREDITATION

GAINING ACCREDITATION

There were several major accreditation processes that NTU went through this year. The major visit was the self-study presented to the Higher Learning Commission. The team recommended that NTU's full accreditation status be continued, praising many aspects of the operations and academic programs, but did find two significant areas that need attention. The first was in compliance with Title IX requirements. Although the team found that overall Title IX was being addressed, but enough concerns were expressed by transgender students to cause a requirement that NTU examine all its reporting, policies, and practices to ensure that "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." That review has been started.

The HLC team also recommended that the administration also should work on strengthening its interactions with faculty. Colleges and universities in the U.S. are required to allow faculty to co-govern those portions of the institution that impact their performance. In the past NTU has done well on this measure, but the team found that the administration currently needs to spend some time on this aspect of operations. Other accreditation visits NTU received included:

1) ABET - The university also applied for ABET accreditation for its engineering programs. A draft report of the visit has been completed and the preliminary indication is that the engineering faculty and engineering programs passed the review by the accrediting team.



Dr. Elmer J. Guy, right, takes a photo with the Higher Commission's Learning visiting team during a recent accreditation visit. NTU will be accredited for 10 years, i.e., until 2027 under the Standard accreditation Pathway process. A mid-cycle review will take place in the fall of 2021, but a reaffirmation of accreditation will take place in the fall of 2027.



2) AVMA - The Veterinary Technician program also received its initial accreditation this year from the American Veterinary Medical Assocation (AVMA). In doing so, NTU became the first tribal college and university to achieve the status. The program will be addressing several issues noted by the AVMA, including adding more classroom space, a large animal facility, and lighting to the campus for safety reasons.

All these accreditation visits affirm that NTU is making significant progress in its goal to give students national accreditation for every program that has a general or specialty accreditation authority that helps students find employment.



In 2017, NTU became the first tribal university to be accredited by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities. The accreditation will help students upon graduation when it comes to obtaining gainful employment.

NAVAJO TECHNICAL UNIVERSITY DEGREES & CERTIFICATES

Master of Arts degree:

Diné Culture, Language, and Leadership

Bachelor of Arts degree:

Diné Culture, Language, and Leadership

Bachelor of Applied Science degrees:

- Information Technology
- Advanced Manufacturing Technology

Information Technology - New Media Bachelor of Fine Arts degree:

Creative Writing and New Media •

Associate of Arts:

General Studies

Associate of Science:

- Early Childhood Multicultural Education
- Mathematics

Associate of Applied Science:

- Accounting
- Administrative Office Specialist
- Automotive Technology
- Building Information Modeling
- Chemical Engineering Technology .
- Construction Technology
- Culinary Arts (ACF certified)
- Energy Systems •
- .
- Environmental Science & Natural Resources •
- Geographic Information Technology
- IT Technician
- Law Advocate •
- Professional Baking (ACF certified)
- Public Administration
- Veterinary Technician

Bachelor of Science degrees:

- Biology •
- Electrical Engineering
- Early Childhood Multicultural Education
- Environmental Science & Natural Resources
- Industrial Engineering

Vocational/Technical Certificates:

- Administrative Office Specialist
- Applied Computer Technology
- Automotive Technology
- Bookkeeping
- Carpentry
- Commercial Driver License
- Construction Technology
- Counseling
- Culinary Arts
- Electrical Trades
- Environmental Science & Natural Resources
- Geographical Information Technology
- Industrial Maintenance and Operations
- Information Technology Assistant
- Law Enforcement
- Legal Assistant
- Mathematics
- Navajo Court Transcription
- Pre Engineering
- Pre Nursing
- Professional Baking
- Textile Weaving

For more information about NTU's academic programs visit our website at www.navajotech.edu.

3) ACF - The Culinary Arts & Commercial baking program are accredited through the American Culinary Federation. NTU is the only Native American Higher Learning Institution that has their Culinary & Baking programs, both certificate and Associate Degree program, accredited through the American Culinary Federation. 2017 was a year of growth and of recognition through the New Mexico Chapter of the American Culinary Federation. NTU received Chef Educator of the Year, Brian Tatsukawa (right), Student Chef of the Year, Lorena Giesbrecht, and Chef of the Year, Robert Witte.



- - Welding
- Engineering Technology



One of the most exciting parts of the year has been projects promising to pay dividends for the Navajo people and the Navajo Nation. Partnerships with the offices of the President, Vice President, and Council have been especially promising this year.

ADVANCED MANUFACTURING

Navajo Technical University is partnering with the Navajo Nation and the Boeing Corporation on a major initiative through which NTU and the Navajo Nation will become supply chain partners in the aerospace and global industrial manufacturing industry. Seen as an initiative that will "change the economic structure on the Navajo Nation," Boeing leaders have visited NTU 3 times in 2017 and a 4th visit is planned in February 2018. NTU and the Navajo President's office are working in an effort to convince Boeing to locate a major manufacturing facility in the Nation.

NTU graduates will have the opportunity to pursue high paying careers working on aerospace part design, quality testing, and digital manufacturing without moving from home. The Navajo Nation plans to build a large manufacturing facility that could employ thousands of Navajos with a wide range of technical skills.

Boeing Corporation is especially interested in providing capstone projects for NTU students and faculty, and will host two NTU students as interns during the summer of 2018. Greg Dodge, (*near right*) Fab Lab Technical Manager, spent two months in El Segundo, California working for a Boeing contractor. Boeing Corporation expressed high praise for Greg's work ethic and skill.

This work is being made possible as a result of the long-term success of the Center for Digital Technology located on the Crownpoint campus.

Industry partners include:

- Dekker Perich Sabatini Design
- Department of Veteran Affairs
- FARO
- NASA
- National Science Foundation
- National Tool Makers Association
- Office of Dine Youth
- Workforce Development

ADVANCED TECHNOLOGY FOR **ADVANCED** PRODUCTION



NTU's PR2 Robot was gifted for special student use in the Fab Lab. The robot utililzes laser scanning technology and sensors in its head and hands to be able to grasp objects and provide special functions like fold laundry or play billiards.



HDI white light scanner has different configurations that allow for scanning different sized objects. Students have used it in reverse engineering and inspection as well as digitizing objects for use in animations.



NTU's newest machine is a ShopBot PRSalpha CNC, which is ideal for cutting, drilling, carving, and machining on wood, plastics, aluminum and more in a smaller shop setting. Students assembled the machine to enhance learning.

DEVELOPMENT OF A METROLOGY LAB

There has been an incredible amount of growth in the Center for Digital Technologies for the enhancement of student learning in support of student projects, research and internships. An aggressive five-year plan has been created to provide a clear vision for the direction of the "Lab" facilities for educational support, student internships, research, industry partnerships, and revenue generation. By the close of the fifth year there will be three major components to the Center, the CDT, which will continue to concentrate on 3D, laser, and related technologies, the Metrology Technology Center and the Advanced Manufacturing Technology Center. Metrology is defined by the International Bureau of Weights and Measures (BIPM), as "the science of measurement, embracing both experimental and theoretical determinations at any level of uncertainty in any field of science and technology". It is quickly becoming one of the fastest growing engines of commerce in the digital technology field. Advanced Manufacturing emphasizes the innovative application of technologies, processes, and methods to product design and production, including the rapid transfer of science and technologies into manufacturing operations.

These three components of CDT will be producing "graduates" that will fill the many projected positions within the Advanced Manufacturing industries locally, regionally and nationally. The skills will include metrologists/inspectors, 3D metal printer tenders, 3D metal AM machine technicians, material lab technicians, CT scanning technicians to name a few. There will be increased academic offerings that will include metrology education from the AAS through PhD levels in partnership with institutions such as University of North Carolina – Charlotte and V&M Global, an important private sector firm, personnel. At the close of the fifth year of the plan there will also be revenue generated through services provided by these components, including metrology/inspection services, material testing and characterization services, prototyping using 3D printing polymers and metals, educational revenue.







Motoman Robotic Arm is part of our effort to introduce students to robot programming for manufacturing automation. The arm is used to load parts into a machine, manipulate parts for inspection, or to stack parts after processing.



ZCorp 650 is a ceramic powder and binder process that includes 5 print heads that can print in color. It is used for sample prints for student use as well as prints for NASA/JPL. It has also been used for Boeing, and student based projects.



Mark II by Markforged is an additive printer that utilizes nylon and carbon based nylon that can be embedded with fiberglass, Kevlar, & carbon fiber to make parts durable. It is also used for prototypes and working mechanism after print.

Industries of impact include:

- Aeronautics
- Architecture
- Automotive Mechanics
- Construction
- Film
- Forensics
- Medical Research
- Space Travel

A Center for the Environment was created. It is designed to help the university develop a major environmental lab, training and education programs, and pursue other projects related to working with the Navajo Nation and private sector firms as part of the abandoned uranium mine cleanup effort. Behind the center is the cultural idea that water is a living substance. It not only makes up the physical nature of humans, other animals, and vegetation, but is also part of the interactions that occur inside the larger life of what today are called ecosystems. The center is focused on a wide range of issues not only connected to the mine cleanup efforts, but also to other situations that have the potential to impact the long-term health of Navajo people and lands.

The President is working with the Arizona State Legislature in an effort to secure one million dollars a year over five years to build a major environmental lab in Chinle. NTU has also started working with private sector firms to develop grant proposals designed to fund training programs for workers that will be needed for the clean up of abandoned uranium mines. The first training will be designed to train workers who have been laid off or are facing lay offs in the Navajo energy sector in the skills related to certifications necessary to achieving these jobs. If funded this training program will also be available to all other interested Navajos.





NTU LLC

In November 2016, the NTU Board of Regents authorized the creation of a Limited Liability Corporation, Navajo Technical University Enterprises, LLC (name TBD). Drafts of the Operating Agreement and Articles of Incorporation are being developed in consultation with an attorney. This organization will be the economic vehicle that will keep students home on the Navajo Nation, paving the way for a sustainable and prosperous future for the Navajo people. Some of the first revenue-generating activities will include the advanced manufacturing activities with Boeing Corporation, and the development of an analytical laboratory to serve the environmental clean up on the Navajo Nation.

BOND WILSON TECHNICAL CENTER (BWTC)

An important contribution to NTU's commitment to experiential learning is the implementation of a partnership with the Bond Wilson Technical Center (BWTC) in Kirtland, NM. BWTC is funded by Central Consolidated School District and has offered its space (formerly an elementary school, but well-equipped) to NTU in development of a "Vo-Tech" model school, reaching to CCSD high school students and regional college students. This innovative education model responds to industry needs by offering programs where students will get immediate experience as they pursue their certificates and degrees.

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The first programs to be offered include: Construction Trades, Electrical Trades, Welding, and Business. The development of a "Fab Lab" will serve students in hands on learning for pre-engineering and other trades lab experiences. NTU is advertising for a Coordinator to be housed at BWTC to build the entire program as well as to develop an arm of the NTU Innovation Center with opportunities for small business and entrepreneur activities.



CREATING A WORLD-CLASS UNIVERSITY

Capital improvements in 2017 continued to be initiated and completed, helping NTU to continue its efforts to create a world-class university for the Navajo Nation. In Crownpoint a 8,000 sq. ft. library expansion and 24,000 sq. ft. Student Union Building were completed in Fall 2016. The library expansion was essential since the plans to increase the number of graduate degrees at NTU requires better library facilities. The Student Union building, attached to the gymnasium and its health programs, added high technology enabled classrooms and office space for student services.

The big news for the year was the groundbreaking for the first classroom building for the Chinle Instructional Site. Construction has started on a 6,000 sq. ft. steel classroom building scheduled for completion in Spring 2018. A contractor was also selected for the construction of a 20,000 sq. ft. two-story academic building (*above right*). Construction is expected to start in spring 2018.

NTU Administrators. Navajo Nation officials, and community members of Chinle, AZ break ground for NTU's new instructional site. NTU hopes to develop the site into a full-scale campus so it can offer many of the baccalaureate and graduate degree programs currently offered in Crownpoint. The site will also provide opportunities to develop new programs.



Securing water, sewage connections, and electricity from NTUA and others has been challenging, but those problems are being solved. Construction of these two buildings will allow NTU to change Chinle from an Instructional Site into a campus with all the services currently available only at Crownpoint. It will also allow the development of a richer curriculum that will include baccalaureate degrees in Chinle. The HLC will have to approve this change.

Eight hundred and fifty thousand dollars (\$850,000) was secured from New Mexico's Higher Education Department's capital outlay to start the design and site preparation for a 30,000 square foot academic building to replace the modular buildings that are both limited in their effectiveness as classrooms and expensive to operate and maintain. This planning and preparatory work is underway. Two technical education labs in Crownpoint underwent serious upgrades during the year. The welding lab was re-done, adding individual workstations as well as state of the art equipment. The lab for Electrical Trades was upgraded to enable training for commercial and industrial electrician skills to add to the old program designed to train electricians to work on home and small projects.



The old library was remodeled with student help to a one-stop-shop for admissions, registration, and financial aid. A number of improvements also occurred at the NTU Veterinary Teaching Hospital. The surgical suite was redone. Plans to relocate two modular buildings from the main campus for much needed classroom, storage, and clinical space were completed. In addition, a 2,700 sq, ft. modular building was purchased, adding lab space as well as more classroom capacity.

Additional work at the Vet Clinic was completed with the construction of a sheep barn that added water and electricity to this area of the Land Grant Campus. This work is allowing the ram breeding project to go forward that is serving herders in Arizona, New Mexico, and Utah as well as research designed to improve the Navajo Nation's flocks.

About \$9.3 million of the funding for the 90,000 sq. ft. Resident Hall Project in Crownpoint was secured from Navajo Housing Authority. The Navajo Nation Sihasin Committe has committed another \$14.3 million, and we are hopeful the Navajo Nation Council will approve that funding this spring so that construction can start in the summer of 2018.

A contractor was also selected for the Wet-Lab project, a 5,000 sq. ft. addition to the Student Union Building. This project will upgrade lab facilities available in Crownpoint for Chemistry and Biology instruction, and will include state-of-the-art facilities and equipment for chemistry and biology instruction. The new labs will also allow NTU to develop the ability to better help with analysis of water, soil, and other aspects of the environment in the Navajo Nation.





AMERICAN HIGHER EDUCATION CONSORTIUM

Students at Navajo Technical University found success at the American Indian Higher Education Consortium's annual student conference, while engaging in scholarship and competition with the 36 other tribal colleges and universities that make up AIHEC. The conference took place March 18-21 in Rapid City, SD. NTU took top honors in the team Web design category with students Aaron Huber, Tex Etsitty, Erin Toadlena, and Felicia Trebian(*below*). NTU also earned recogniton placing first in volleyball, while student Felicia Chischilly won the People's Choice award in the film festival as well as Best Animation. Both NTU's men's and women's archery teams placed second.



Students pose for a photo at the 2017 AIHEC conference. NTU students were awarded across 12 different categories of competition.

NTU's co-ed volleyball team placed first in the AIHEC volleyball tournament, winning the championship in straight sets.

Archer Rashaundel Combs takes aim during the 3D archery competition. Combs placed second overall in the competition.

A NATIONAL CHAMPION ARCHER

Creative Writing and New Media major Keanu Jones (*right*) won the United States Intercollegiate Archery Championship (USIAC) in Yankton, South Dakota. Keanu Jones (Flagstaff, AZ) earned top honors with his gold medal performance after besting H. Sellier from UC-Irvine with a 6-4 match win to claim the Collegiate National title in the Basic Bow Men category. Jones also led his team to a silver medal finish in the basic bow team category along with Electrical Trades major Steven Bitah and Welding Technology major Shawndell Francis. Jones and Bitah were both recognized as All-Americans in the basic bow division as well.



TRANSFER STUDENT FINDS SUCCESS AT NTU, WINS SKILLSUSA GOLD



ANNUAL RESEARCH DAY ENCOURAGES ACADEMIA

Since NTU became a university in 2013, it has held an annual research competition that encourages academia and the presentation of student research. This year, NTU included members of its School of Engineering Advisory Board to evaluate student work, while also inviting students from St. Bonaventure School in Thoreau, NM to showcase their research in preparation for the state Science Fair. The collaboration was done to engage NTU's surrounding communities in meaningful interaction.

A total of \$850 was awarded to students with a poster presentation that placed in the top three. Students were then encouraged to present their work at the national AIHEC Student Conference in Rapid City, SD.

In March, 41 students competed in the state SkillsUSA Leadership and Skills Conference in Albuquerque, 35 of them bringing home a medal (85%). Students earned gold medals in 13 competitions, silver medals in 8 competitions, and bronze medals in 8 competitions. Two students were elected to represent SkillsUSA as state officers and NTU was recognized as the largest postsecondary chapter in New Mexico. We also earned our second gold medal as a Chapter of Distinction. NTU was the only post-secondary chapter in New Mexico to earn this recognition.

The fifteen students who earned a gold medal at the state competition then got to compete at the National Conference held in June. Transfer student Lorena Geisbrecht (*left*) earned a gold medal in Restaurant Service, while several students placed in the top 10.



PUTTING AN EMPHASIS ON COMMUNITY OUTREACH

BRIDGING OUR OPERATIONS WITH THE COMMUNITIES WE SERVE

As NTU evolved into a university over the last thirty years, the one constant has been the communities of the Navajo Nation in which we serve. Community engagement is essential to the sustainability of a tribal institution because it provides the support our students need beyond our direct means. NTU strives for community engagement for this reason, and has been making an active effort in layering its resources with our outside stakeholders to better function. While this has primarily been done through service learning opportunities like when our Environmental Science and Natural Resources program conducted an Environmental Assessment for the Baahaali Chapter, other unique hands on opportunities are beginning to present themselves as more people become aware of NTU and its services.

In addition to its hands on experiences, NTU also strives to serve as a community hub when it comes to cultural events and activities. In 2017, NTU added a plethora of community events to its student services offerings, including: the inaugural Diné [Thinking] Space community forum; the inaugural Emerging Diné Writers Institute; the inaugural Navajo Maker Summer Camp; and the inaugural Operation: Appreciation student veteran celebration. Each event was free and open to the public, and each event sought to share information and knowledge. Certain events, like Diné [Thinking] Space, had well over 500 people in attendance, and incorporated cultural activity to reinforce classroom learning and services.





Computer Science major Joel Yazzie and 2016-2017 Miss NTU Brandy Joey serve as the head dancers at a NTU Song & Dance contest. The event was a main feature of the inaugural Diné [Thinking] Space event.



Peter McDonald, Sr. and Joe Vandever, Sr. embrace one another at Operation: Appreciation, a NTU sponsored event that sought to celebrate NTU's student and staff veterans while honoring the Code Talkers and their history.



NTU Environmental Science students conducted an Environmental Assessment for the Breadsprings Chapter prior to proposed construction of the Baahaali Chapter Maintenance patrol yard in effort of service learning.

Six students from Juilliard provided music education as a gateway to math skills for Navajo K-12 students. The workshop combined the fundamentals of music and math while cultivating a safe space for each student to thrive and gain confidence. NTU's School of Graduate Studies was key to starting the program.





NTU was pleased to welcome the sounds of violins, guitars, singing, and laughter this past summer as six Juilliard students and alumni from The Heartbeat Project provided music education as a gateway to math skills for Navajo K-12 students living on the Reservation.

The workshop combined the fundamentals of music and math while cultivating a safe space for each student to thrive and gain confidence. During the week, the students also learned from four guest artists: Rahim AlHaj, an Iraqi refugee who plays the oud; Delbert Anderson, a Navajo jazz trumpeter from Farmington; Emerson John, a cultural specialist from Fort Defiance who introduced Diné traditional stories and sacred and folk chants; and Lynelle Logan, a Navajo opera singer with roots in Crownpoint.



College students from throughout the region attended NTU over the summer as part of the inaugural Emerging Diné Writers' Institute. NTU collaborated with the Navajo Nation Women's Commission to host the event.

Ron Garnanez of Diné Be' Iiná, Inc. hosted a "Sheep to Table" workshop at NTU's hooghan that explained the entire process of butchering. The day long event was attended by students, staff, faculty, and community members!

NTU held the inaugural Navajo Maker Summer Camp, a week long, day camp that introduced youth ages 12-18 in Advanced Manufacturing. Here, a student from St. Michaels works on a phone cover he designed in TinkerCad.



NTU is facing a number of challenges that need to be addressed. Some long-term programs are in place to address these cases, but more work needs to be done to move beyond the barriers they represent.

LACK OF COLLEGE-READY SKILLS

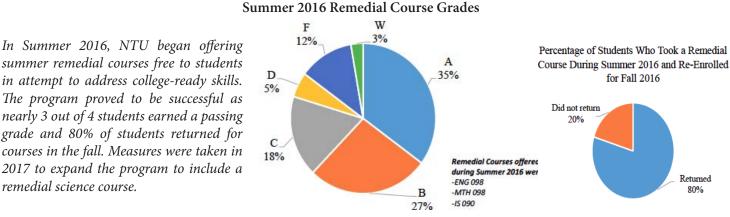
The most serious of challenges is the number of ill-prepared students coming out of high school. The problem is directly related to the fact that too many K-12 students are absent too often. Absenteeism negatively impacts student success in the basic skill programs at NTU. NTU has developed programs to address the lack of basic skills among entering students. Its dual credit program, allowing students to earn college and high school credit at the same time, is designed to increase the number of high school students that have college-level experience and better skills coming out of graduation.

The university also has a robust skill-building curriculum that students must go through if they are lacking the college-level skills they need, and tutoring programs that help develop students without basic skills as they go through college. Unfortunately, because of attendance problems and/or the lack of homework completion, drop out and failure rates in these courses are higher than for other programs of study.

There is a strong emphasis throughout NTU in experiential education. Research by the National Science Foundation and others has shown that this approach increases student success, especially with American Indian and other minority students. NTU tries to offer internships whenever possible since students who do get involved in such on-campus or private or tribal sector experiences tend to finish their programs at a much higher rate. The university is always trying to raise funds through grant proposals to increase the number of internships available.

The university has also become creative in providing solutions to these persistent problems by exploring new avenues that promote equity and opportunity, like offering a unique online learning environment to dual credit students or waiving tuition for summer remedial courses in English, Mathematics, and Science (*see below*).

FREE TUITION SUMMER REMEDIAL COURSES SUCCESS



SCHOLARSHIPS AND FINANCIAL AID

There is also a continuing need for more student scholarships. The Navajo Scholarship office has been working with tribal colleges for several years now, but programs like the lottery scholarship in New Mexico funnel Navajo students away from the tribal colleges where completion rates are much lower than those at NTU. Getting the New Mexico legislature to provide lottery scholarship to the tribal colleges would be helpful, but more scholarship money in general would result in not only more, but more successful, students since finances are the major reason given by a majority of students for not completing their programs. NTU has been persistent in obtaining more scholarship opportunities for students by working closely with the Office of the Navajo Nation Scholarship & Financial Aid and organizations like the American Indian College Fund, the National Science Foundation, and the American Indian Science and Engineering Society.

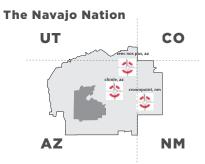


LACK OF STUDENT HOUSING

A lack of student and faculty housing is also a continuing problem at our locations in Crownpoint, Chinle, and Teec Nos Pos. This is especially true for married students, although the number of living spaces overall is at a crisis level. If the housing proposed is built in Crownpoint (*see above*), Chinle then becomes the focus for the next project. The Navajo Nation still has one of the lowest percentages of college and university graduates in the United States, but enrollment is limited if students do not have a place to live while going to school. A housing study for the Teec Nos Pos instructional site also needs to be completed.

Until this problem is addressed NTU will not be able to make the kind of progress necessary to help the Navajo people become one of the most educated populations in the United States. To address both student and faculty housing, NTU has been diligently communicating with the Navajo Nation and the states of New Mexico and Arizona to make each happen.

WHERE DO OUR STUDENTS COME FROM?



Lack of housing has caused a shift in NTU's population with many students coming from communities off the Navajo Nation.

- Eastern Agency 31%
- Fort Defiance Agency 13%
- Central Agency 26%
- Western Agency 2%
- Northern Agency 7%
- Off the Navajo Nation -21%

PLANS MOVING FORWARD



NTU made tremendous gains in 2017, including establishing a MOU with Northern Arziona University (*pictured above*). Some major initiatives for 2018 will continue NTU's mission of providing pathways to endless possiblity include:

- Transition the Chinle Instructional Site into a campus
- Move forward plans for a Navajo Medical School
- Plan a RN degree for Chinle
- Build a large animal treatment center at the NTU Veterinary Hospital campus and add classroom modular units
- Improve the technology infrastructure at both Crownpoint and Chinle
- Submit at least one new masters degree program to the HLC
- Publish at least one book under Navajo Technical University Press
- Launch education programs related to the clean up of abandoned uranium mines
- Strengthen physics education at Crownpoint
- Offer at least one additional technical degree program at Teec Nos Pos
- Plan an academic program emphasizing artificial intelligence
- Strengthening efforts in entrepreneurial education
- Strengthening efforts to connect with the private sector in order to bring jobs to the Navajo Nation
- Offer Master of Arts courses at the Bond Wilson Technical Center
- Accreditation with the World Indigenous Nations Higher Education Consortium.

