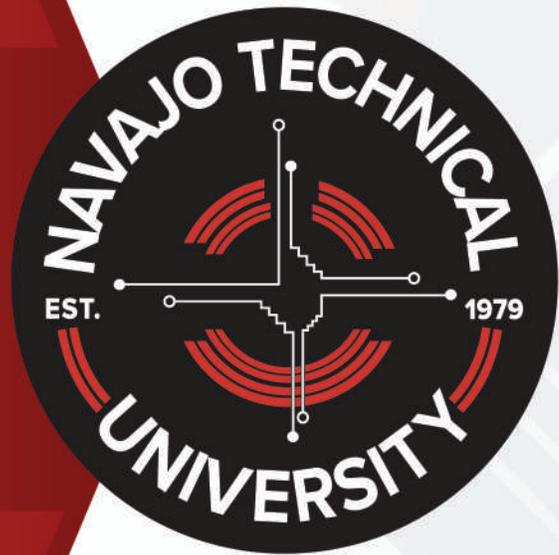


# 2025 ANNUAL REPORT

## INNOVATION

*NITSÁHÁKEES* | *NÁHATÁ* | *IINÁ* | *SIH HASIN*

Navajo Technical University honors Diné Culture and Language, while Educating for the Future.



(505) 387-7401

[www.NAVAJOTECH.edu](http://www.NAVAJOTECH.edu)

CONNECT WITH US:

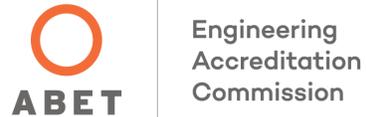




**NTU IS ACCREDITED WITH THE  
HIGHER LEARNING COMMISSION**

- 10 Year Approval 2018 -

**SPECIAL PROGRAM ACCREDITATIONS WITH:**



Electrical Engineering, Industrial Engineering



Veterinary Technology



Commercial Baking, Culinary Arts



Carpentry, Construction Technology,  
Electrical Trades, and Welding

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The NTU core values are in addition to its mission, vision, and philosophy statements, and help guide the university's day-to-day operations. They apply to students, faculty, staff, and the board of regents, and help us achieve our intended goals.

- **Íhoo'aah:** Learning
- **Éédééhtj:** Innovation
- **Ałk'izhdiitj:** Communication
- **Ahiłna'anish:** Collaboration
- **'Adiłjidlj:** Integrity
- **Ałhidilzin:** Respect
- **Na'alkaah:** Research

## Mission

Navajo Technical University honors Diné Culture and Language, while educating for the future.

## Vision

Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

## Philosophy

Through the teachings of **Nitsahakees** (*thinking*), **Nahata** (*planning*), **lina** (*implementing*), and **Siih Hasin** (*reflection*), students acquire quality education in diverse fields, while preserving cultural quality education in diverse fields, and gaining economic opportunities.

## BOARD OF REGENTS

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### Board Chairperson

**Tom Platero**  
Fort Defiance Agency

### Board Vice Chairperson

**Dr. Delores Greyeyes**  
Western Agency

### Board Members

**Dr. Carolyn Morris**  
Shiprock Agency

**Tara Denetsosie-Lovato**  
Chinle Agency

**Roselyn John**  
Eastern Agency

**Shinaeya Watson**  
NTU Student Senate President

## ADMINISTRATION

---

**Elmer J. Guy, Ph.D.**  
NTU President

**Colleen W. Bowman, Ed.D.**  
NTU Provost

**Jason Arviso, Ed.D.**  
Vice-President of Operations

---

**Casmir Agbaraji, Ph.D.**  
Dean of Undergraduate Studies

**Jerlynn Henry**  
Dean of Student Services

**Sylvia Tyler**  
Interim Director of Finance

**Clinton Desiderio**  
Director of Communication & Marketing

**Delores Becenti, Ed.D.**  
Director of Dual Credit

**Jared Ribble**  
Director of Information of Technology

**Sheena Begay**  
Director of Institutional Data & Reporting

**Wanda Cooke**  
Director of Human Resources

**Abraham Bitok**  
Director of Support Services

**Coleen Arviso, Ph.D.**  
Director of Online Learning

**Sharon Noel**  
Legal Counsel

**Daryl R. Begay**  
Government Relations Officer



## STATEMENT FROM OUR NTU PRESIDENT



**Elmer J. Guy, Ph.D**  
NTU President



The year 2025 marked a period of growth, progress, and renewed purpose at Navajo Technical University. Across our campuses and programs, NTU continued to expand academic opportunities, strengthen workforce training, and support student success while remaining grounded in its mission to serve the Navajo and Zuni Nations. Our students demonstrated commitment and perseverance as they balanced education with family and community responsibilities, preparing themselves for meaningful careers and leadership roles.

This year, the combined efforts of students, families, faculty, staff, administrators, and community partners led to measurable advancements across the university. NTU enhanced instructional delivery, expanded hands-on learning experiences, strengthened research activity, and invested in technology and infrastructure to better support teaching and learning. These efforts reflect a shared commitment to providing accessible, high-quality education that responds to workforce and community needs.

Progress in 2025 was evident in many areas, including student achievement, faculty-led innovation, and program development across trades, STEM, health sciences, education, and the arts. Faculty and staff worked collaboratively to engage students through applied learning, research projects, and industry-aligned training, ensuring graduates are prepared to contribute to their professions and communities.

Guided by a learn-by-doing approach rooted in the Diné Philosophy of Education, Navajo Technical University continues to emphasize practical experience, cultural values, and lifelong learning. As we reflect on 2025, NTU stands as a stronger and more forward-looking institution—positioned to build on its successes and continue expanding opportunities for future generations.

+ +  + +  
**Elmer J. Guy, Ph.D**  
NTU President



## BUILDING FUTURES, HONORING TRADITION

Inspired by the tribal education movement, NTU embraced Navajo culture, language, and self-determination as the foundation for student success and community strength.

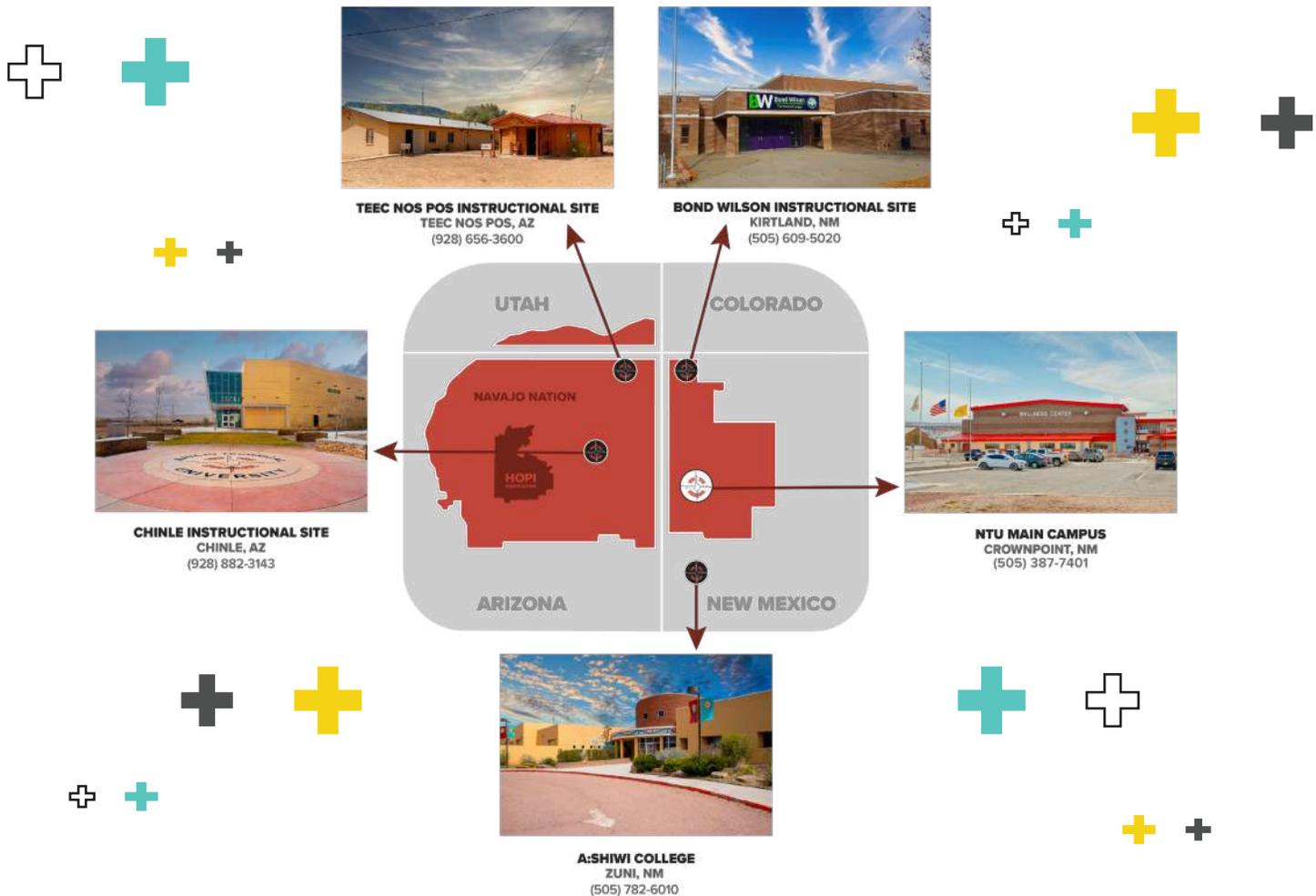
**Navajo Technical University (NTU)** began in 1969 as the Navajo Skills Center, created to address extreme unemployment and poverty on the Navajo Nation through workforce training. Rooted in vocational education, the center emphasized trades such as carpentry, electrical work, and office skills—programs that still exist at NTU today. Its mission aligned with the broader tribal education movement inspired by the Rough Rock Demonstration School, which emphasized Navajo culture, language, and self-determination in education.

Over time, the institution expanded beyond workforce training. Accredited in 1984, it became the Crownpoint Institute of Technology in 1985, a land-grant institution in 1994, and a fully accredited community college in 2006, when it was renamed Navajo Technical College. Instructional sites expanded beyond Crownpoint, and by 2010 the college offered accredited bachelor's degrees, followed by a master's degree in Diné Language, Culture, and Leadership in 2013. That same year, it officially became Navajo Technical University.

In 2023, NTU became the first tribal college or university in the United States authorized to offer a PhD, with its Doctor of Philosophy in Navajo Culture and Language Sustainability. Today, NTU offers a full career ladder—from micro-credentials and certificates to associate, bachelor's, master's, and doctoral degrees—primarily in trades, STEM, engineering, health, and Diné-centered studies. As the largest tribal university in the nation, NTU serves mostly Navajo students while welcoming learners from other tribal and regional communities.

# 5 LOCATIONS ACROSS THE NAVAJO NATION

## MAIN CAMPUS & INSTRUCTIONAL SITES



## NTU AT A GLANCE

Navajo Technical University's history and curriculum reflect a mission rooted in service to the Navajo Nation. Since its beginnings as the Navajo Skills Center, NTU has focused on developing the knowledge and skills of the Navajo workforce to strengthen economic well-being across the Nation and surrounding communities. Unlike most U.S. institutions, NTU carries a dual mission of education and economic development, shaping a unique career ladder that spans vocational micro-credentials through doctoral degrees. Under President Dr. Elmer Guy's leadership, the university expanded its focus on STEM fields, recognizing their growing role in future economic and workforce development. As NTU evolved into a university, it also adopted an experiential learning model, integrating classroom instruction with hands-on, community-based projects that allow students to apply knowledge through service, research, and real-world practice.

ADVOCATING FOR ACADEMIC EXCELLENCE SINCE 1979

**10:1** STUDENT TO FACULTY RATIO

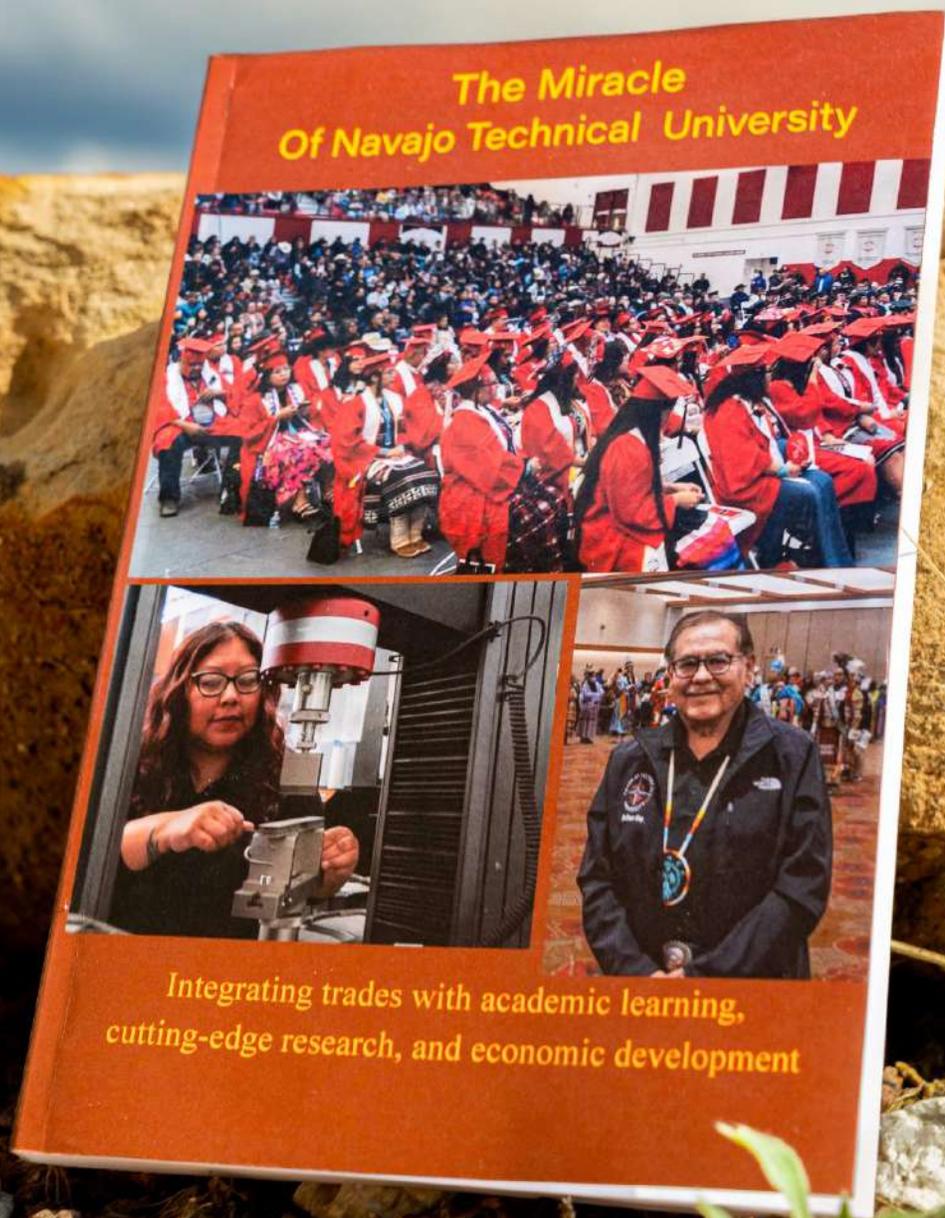
**43%** AMERICAN INDIAN FACULTY

**16**  
ONLINE PROGRAMS

**67**  
ACADEMIC PROGRAMS

**154**  
DEGREES CONFERRED  
FA'24 and SP'25

**35**  
PHD/EDD FACULTY  
6 AMERICAN INDIAN FACULTY



# The Miracle of Navajo Technical University

Integrating Trades Education with Academic Learning, Rigorous Research, and Economic Development

At the beginning of 2025, Navajo Technical University (NTU) was confronting the fact that the new administration in Washington, D.C. was going to campaign against Diversity, Equity, and Inclusion (DEI). Since NTU is a tribal university dedicated to serving Navajo and Zuni students, although it follows an open enrollment policy by which all students from whatever background are invited to enroll, the concern was that the foundation of its various funding sources could be endangered, either weakening the university or even, possibly, having its existence threatened. When the administration started attacking indirect cost and research programs, the concerns about the university's financial health increased.

Responding to daily news reports, the administration and the Board of Regents began to actively work on strategies that could either mitigate any negative outcomes or avoid such outcomes altogether. By this point in time, the President of NTU, Dr. Elmer Guy, had been elected as President of the Board of

the American Indian Higher Education Consortium, the organization in Washington, D.C. that represents all the tribal colleges and universities (TCUs) in the United States. This meant he was in a position to receive briefings on administration policies toward higher education as they were announced by the administration.

Administrative staff also began to explore public statements by those being nominated as secretaries of the Department of Education, the National Science Foundation, the Bureau of Indian Education, the Labor Department, the Department of Defense, and others to develop an overall picture of what the new policy environment as going to be. Then an effort was made to identify how NTU could best move forward in ways that would strengthen the university while, at the same time, supporting key administrative aims. The target was to ensure that NTU would continue to support its stakeholders at the highest level possible in the new funding environment.

Dr. Guy also assigned Tom Davis to work with the staff to develop a book, *The Miracle of Navajo Technical University* (<https://www.amazon.com/Miracle-Navajo-Technical-University-Institution/dp/196415703X>) that could be used in a campaign with federal agencies, U.S. Senators, members of the House of Representatives, legislators in New Mexico, Arizona, and Utah, and the President and council members of the Navajo Nation, and the general public about the extraordinary nature of what NTU had accomplished during its history. When this book was completed, Dr. Guy and Dr. Jason Arviso, the Vice President of Operations, started visiting legislative leaders in Washington, D.C., the state capitals, and the Navajo Nation, distributing the book and talking about the value NTU was providing not only to the Navajo Nation but to the rest of the United States as well. They also visited and talked with important department leaders that provide funding to the university in Washington, D.C. and the states.

Dr. Guy also asked the grant Directors and Prime Investigators (PIs) managing grants for NTU to get into contact with the program officers they were working with to find out the status of their research and program efforts and if a calibration effort would be appropriate to help strengthen the project given the change in the political winds. Adjustments were then made based upon input from the Directors and PIs.

Concerned about increased oversight from Washington, D.C., the Board of Regents and President Guy also worked to improve financial management to ensure that NTU could perform well under any financial oversight generated from Washington, D.C. In this effort, working with Harshwal LLC, the finance department implemented the AI-based indirect cost system developed to improve the efficiency of managing indirect costs from the scores of grants operated by the university, developed the ability to better prepare for more timely audits, and started working to enhance other operations such as the management of travel vouchers and payments to vendors.

The result from all these activities is that, at least through 2025, the university has thrived rather than lost ground in its efforts to serve the Navajo people, its students, and its other stakeholders. One grant program in environmental science was lost, and the indirect cost percentage provided for operations was reduced slightly for Department of Energy programs. The funding lost through these administrative actions in Washington, D.C., however, have been offset by successful efforts by AIHEC and President Guy and faculty and administrative staff at NTU to develop other funding opportunities.

Although this effort is ongoing and will require continued vigilance and additional work across multiple areas of the university's operations, NTU has thus far weathered the new administration's policy shifts better than many other colleges and universities in the United States.

# FY25 FINANCIAL HIGHLIGHTS

	AUDITED - 05/31	UNAUDITED - 05/31
<b>REVENUES</b>	<b>2024</b>	<b>2025</b>
Tuition and Fees, Net	1,178,499	1,259,811
Auxiliary Enterprises	1,085,901	1,144,865
Other Revenue	119,294	251,027
<b>Total Revenue</b>	<b>2,383,694</b>	<b>2,655,708</b>

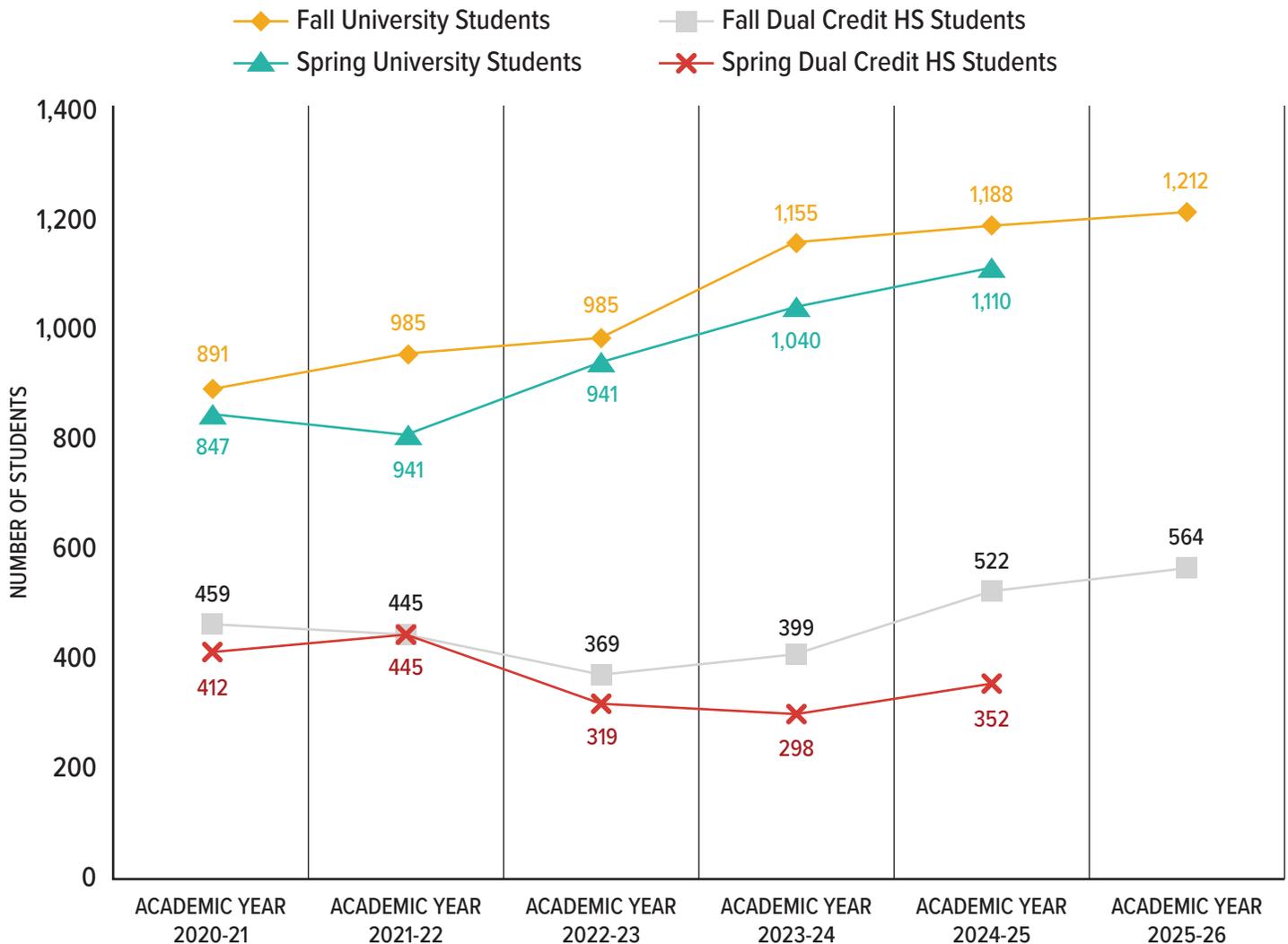
<b>EXPENSES</b>		
Instructional	14,404,701	15,209,621
Student Services	3,730,077	2,871,977
Academic Support	1,825,108	2,351,273
Public Services	497,421	919,908
Student Assistance	6,222,969	6,709,806
Institutional	16,121,865	13,236,701
Auxiliary Services	4,380,514	4,542,830
Depreciation	6,135,089	6,852,861
<b>Total Expenses</b>	<b>53,317,744</b>	<b>52,694,977</b>
<b>Net Operating Results</b>	<b>(50,934,050)</b>	<b>(50,039,268)</b>

<b>NON-OPERATING ACTIVITIES REVENUE</b>		
Federal Grants and Contracts	46,215,858	44,709,194
Government Appropriations	6,676,540	3,988,535
State, Tribal Grants and Contracts	6,040,051	7,858,670
Private Grants & Contributions	673,438	544,834
Interest and Dividends	481,054	662,886
Unrealized Gain (Loss) on Investments	2,364,722	(384,630)
<b>Total Non-Operating Activities</b>	<b>62,451,663</b>	<b>57,379,489</b>

# ENROLLMENT DATA

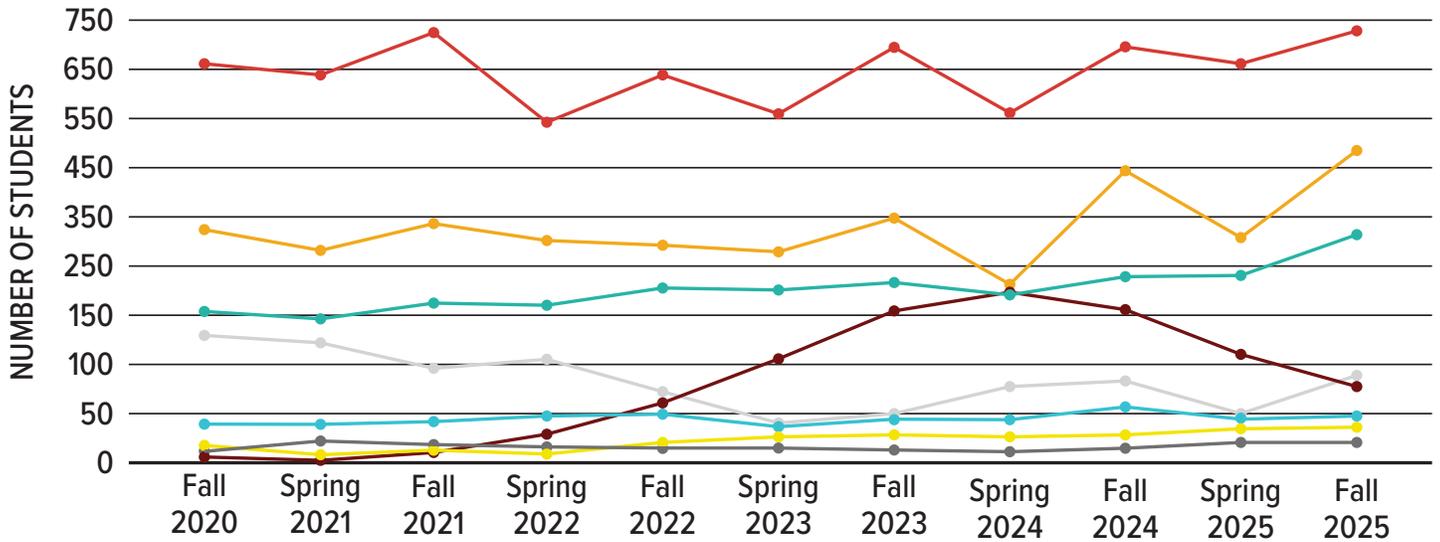
## STUDENT ENROLLMENT BY HEADCOUNT FOR ALL UNIVERSITY STUDENTS VS. DUAL CREDIT STUDENTS

The following graphs present a comparative analysis of enrollment trends for dual credit high school students and university students, offering a clearer understanding of how each population shapes NTU's overall enrollment profile. The data indicate a consistent and measurable increase in traditional university student enrollment over time, suggesting strengthened engagement with NTU's academic programs, holistic support services, and campus infrastructure. This upward pattern also provides evidence of the university's strategic efforts to broaden access, enhance student preparedness, and ensure that educational pathways remain responsive to the shifting needs and priorities of the communities NTU serves.



# ENROLLMENT BY LOCATION AND SITE

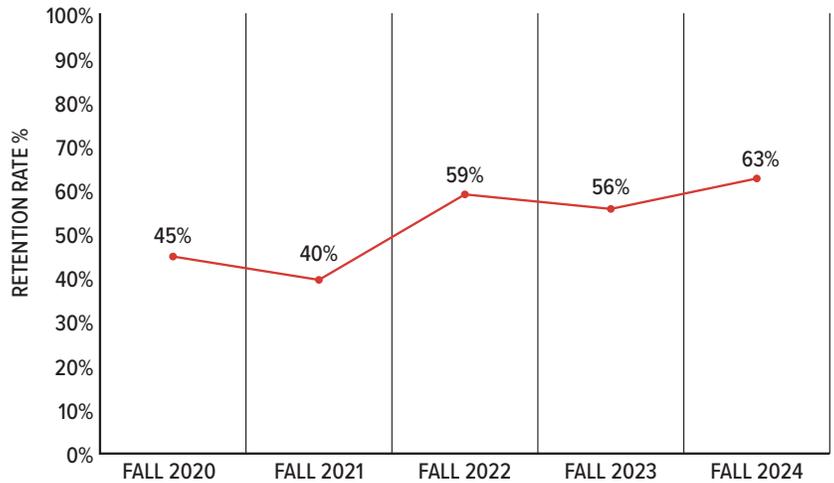
Enrollment data by location provides a critical foundation for understanding how each NTU site serves its surrounding communities and advances the university’s mission. Location-specific insights offer a clear, accurate view of enrollment trends, resource needs, and program demand, enabling leadership to make informed decisions grounded in real conditions. With each site’s data visible, NTU can allocate funding more equitably, strengthen accountability, and ensure that academic programs and student services are aligned with local contexts. This level of transparency also enhances long-term planning, supporting effective staffing, budgeting, and program development while allowing the university to tailor its holistic support model to the unique needs of each community.



	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025
<span style="color: red;">■</span> Crownpoint Campus	670	642	723	572	646	565	697	569	700	660	725
<span style="color: orange;">■</span> NM Dual Enrollment	325	285	335	304	294	282	347	220	436	308	475
<span style="color: darkred;">■</span> Online	0	0	4	24	56	108	165	203	164	114	81
<span style="color: teal;">■</span> Chinle Site	160	146	176	171	205	201	216	193	228	230	309
<span style="color: grey;">■</span> AZ Dual Enrollment	133	126	98	109	75	37	47	78	86	46	90
<span style="color: lightblue;">■</span> Zuni Site	37	36	43	48	49	33	41	43	56	48	41
<span style="color: yellow;">■</span> Kirtland Site	13	6	8	8	16	22	26	24	25	33	34
<span style="color: darkgrey;">■</span> Teec Nos Pos Site	11	17	12	12	13	12	10	8	15	23	21

# FALL TO FALL RETENTION OF FIRST-TIME IN COLLEGE, FULL TIME & DEGREE/CERTIFICATE SEEKING STUDENTS

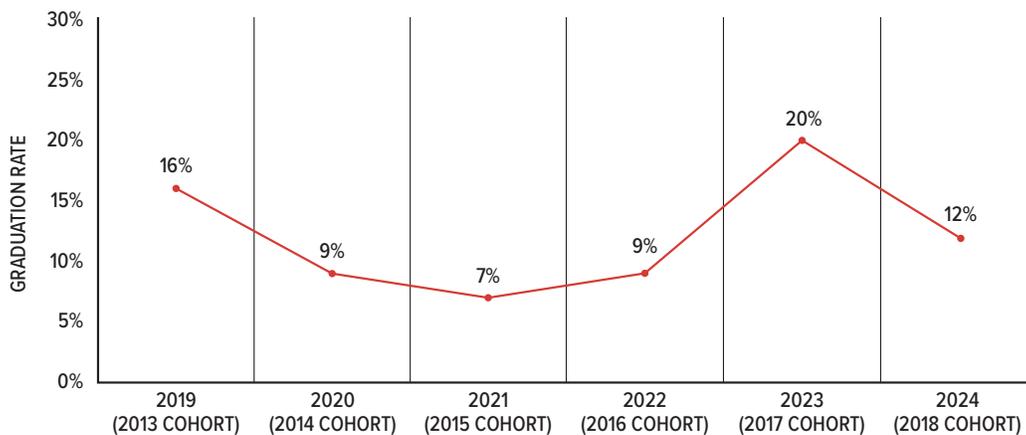
Retention rates at Navajo Technical University (NTU) is defined as the percentage of first time in college (FTIC), full-time and degree or certificate seeking students who returned the following fall semester or graduated within their first year of enrolling at NTU. For example, certificate seeking students in this cohort should complete their program within one year.



## GRADUATION RATE

Navajo Technical University’s graduation rate is 12%, based on the 2018 IPEDS cohort of first-time, full-time, degree- or certificate-seeking students. While this federally defined metric provides a standardized benchmark, it captures only a narrow segment of the student experience and does not fully reflect the diverse circumstances of the communities NTU serves. Many of our students balance academic commitments with responsibilities related to employment, family care, transportation, housing, and childcare, and they enter the university with varying levels of academic readiness shaped by unequal access to preparatory resources. These factors influence the pace of degree completion and contribute to extended timelines that fall outside the IPEDS reporting window. In response, NTU remains committed to a holistic, student-centered support model that integrates academic advising, tutoring, culturally grounded programming, and wraparound services designed to address structural barriers and promote long-term student success.

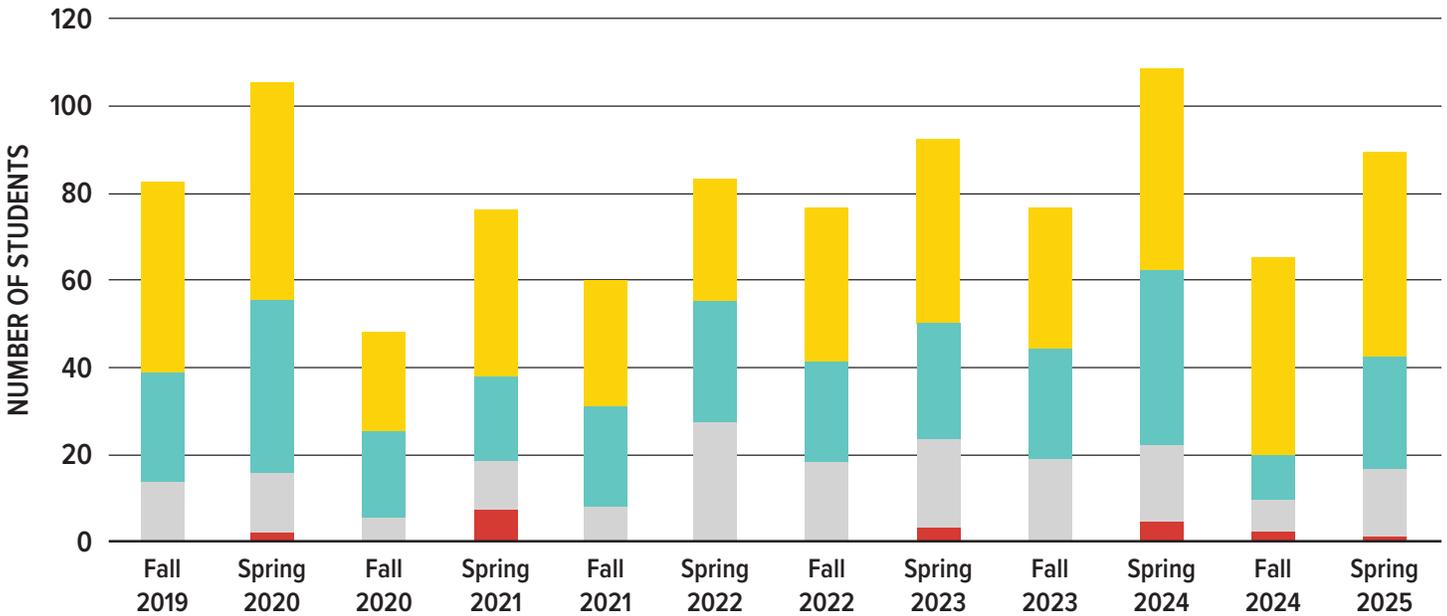
The Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the National Center for Education Statistics, a part of the Institute for Education Sciences within the United States Department of Education.



\*Source: Integrated Postsecondary Data Education System (IPEDS)

# CONFERRED GRADUATES

While our graduation rates may appear low when viewed through the IPEDS definition of on-time completion, it is important to emphasize that we confer degrees upon all students who successfully meet their academic requirements. Conferred graduates are those who have completed their approved degree plans or contracts and have officially been awarded their degrees by the NTU Registrar.



	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025
<span style="color: yellow;">■</span> Certificate	43	50	22	38	29	28	35	42	32	46	44	49
<span style="color: teal;">■</span> Associate	25	39	20	19	22	27	23	26	25	39	11	26
<span style="color: grey;">■</span> Bachelor	14	14	6	11	8	27	18	20	18	18	7	15
<span style="color: red;">■</span> Master	0	2	0	8	1	1	0	4	1	5	3	2



**“ My grandchildren, education is the ladder. Tell our people to take it. ”**  
— Chief Manuelito

## **NTU HIGHER EDUCATION MODEL**

An education model rooted in Diné values, designed to build careers, strengthen communities, and drive sustainable growth across the Navajo Nation.

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Navajo Technical University stands apart through an innovative higher education model designed to meet the real needs of the Diné people and the Navajo Nation. NTU’s academic framework is built around career pathways that begin with vocational and technical training and extend through advanced degrees, including doctoral programs. Across all levels, students engage in experiential learning grounded in Diné culture and language, creativity, and hands-on research led by both faculty and students. Many programs are developed in direct response to Navajo Nation priorities, ensuring education remains closely connected to community needs.

NTU’s mission-driven approach has fostered strong partnerships with tribal, state, and federal agencies, as well as colleges, universities, and private-sector organizations. These collaborations support workforce development, applied research, and community-focused projects that contribute to economic growth across the region.

Since its origins within the tribal colleges and universities movement, NTU has successfully integrated technical training with academic scholarship to create a model centered on innovation, service, and opportunity. This distinctive approach has positioned the university as a catalyst for progress in one of the nation’s most underserved regions—laying the foundation for continued impact and an even more promising future.

# Skyhawks Athletics

## SKYHAWKS BASKETBALL 2025-26

Our student athletes are dedicated and committed to compete at the collegiate year level and live an active lifestyle. The Collegiate program at NTU strives to provide students a positive platform to play college basketball while receiving a strong education to meet the country's workforce demands.



### 2025-26 Women's Basketball Roster:

- Coach: Aenor Louis
- #11 Jocee Henderson - Biology
- #32 Asia Kee - Nursing
- #15 Latisha Mutte - Nursing
- #25 Tyra Bitsue - Nursing
- #13 Kalise Steven - Animal Science
- #3 Maria Begaye - Welding
- #14 Keitha Phillips - Law Advocate
- #22 Dalayah Morris – Biology

### 2025-26 Mens Basketball Roster:

- Coach: Michael McMillan
- #25 Joshua Kee - Electrical Engineering
- #13 Zonte Upton - Culinary Arts
- #30 Torman Lang - General Studies
- #2 Uriah Gill - Business Program
- #44 Ira Mayweathers - Culinary Arts
- #22 Troy King - RN/Biology
- #10 Martell Tuley - RN/Biology
- #11 Adakai Yazzie - General Studies
- #4 Arsean Bozo - Engineering Technology
- #32 Oraias Begay - Welding Technology
- #50 Ethan Billy - Engineering Technology
- #0 Ohmyr Secatero - Culinary/Baking Program
- #3 Christopher Rodriguez - Culinary Arts
- #23 Eric Slim Jr. - Electrical Trades
- #34 Keaton Long - New Media

## For more information of the Athletics Department:

Visit: <https://athletics.navajotech.edu/>

SCAN  
QR CODE





## ARCHERY TEAM 2025-26

The NTU Archery team represents NTU across the Southwest, uniting skilled archers from the Navajo Nation in collegiate competition across Compound, Barebow, Recurve, and Traditional archery.

### 2025-26 Archery Roster:

- **Coach: Martin Perry**
- Donovan Martinez - Automotive Tech
- Alexis Arviso - Business Administration
- Jayna Wilson - Automotive Tech
- Nona Nez - Mechanical Engineering
- Owen Hunter - Automotive Tech
- Adrian Larson - Construction Tech
- Nate - Construction Tech
- Kiersten Tsosie - General Studies



## RODEO TEAM 2025-26

NTU's rodeo program is a member of the National Intercollegiate Rodeo Association (NIRA). The rodeo sports program provides students with the opportunity to embrace New Mexico's rugged landscape and compete in various rodeo competitions. Student athletes learn to work as one team with their livestock and team members to represent Navajo Technical University with their dedication and horsemanship skills.

### 2025-26 Rodeo Roster:

- **Coach: Nicole Pino**
- Andre Foster: Welding degree/ Bullriding
- Alvaro Begay: Energy Systems/ Bareback
- Adrian Begay: CDL & Heavy Equipment/ Saddle Bronc
- Autumn Lee: Welding/ Breakaway/ Team Roping
- Isaiah Tom: Construction degree/ Bareback/ Bullriding
- Cajun Cleveland: Diné Studies/ Barrel Racing
- Wyatt James: Welding/ Bullriding
- Kailar Charley: Animal Science/ Bullriding
- Cimmaron Curley: Welding/ Bullriding
- Kayden Isaac: Environmental Engineering/ Team Roping



## CROSS COUNTRY TEAM 2025-26

NTU proudly introduces this year's Cross-Country team, student-athletes representing their university and community with excellence on the course and in the classroom.

### 2025-26 Cross country Roster:

- **Coach: Leonard Lee**
- Elley Noble – Culinary Arts
- Talicia Tom – B.A. Biology
- Syerra Wartz - Biology and Accounting

# Year of the Skyhawks

As we reflect on the past year, we are inspired by the promise and resilience our students continue to show. Time and again, they rise to challenges with determination, creativity, and heart. Their drive motivates us to match their spirit to expand opportunities, remove barriers, and support their growth as leaders, professionals, and changemakers for their communities.



### Registered Nursing Blessing Ceremony and Orientation

On January 14, 2025, Navajo Technical University announced the launch of its Registered Nurse Program and welcomed admitted students during a program orientation that emphasized service to local communities. The reestablished program reflects NTU's commitment to expanding healthcare education and preparing students to return to their communities as skilled registered nurses.



### BHP Fuels NTU Dreams: Chinle Students Awarded Scholarships

On August 8, 2025, Navajo Technical University announced that students from the Chinle Instructional Site received Broken Hill Proprietary (BHP) scholarships for the second consecutive year. The scholarships support students pursuing high-demand fields such as advanced manufacturing, environmental science, information technology, and sustainable energy, reinforcing NTU's commitment to academic excellence, workforce development, and culturally grounded education.



### NTU Rodeo Team Shares Expertise Through Community Bull Riding Clinic

On February 22, 2025, the NTU Rodeo Team hosted a Bull Riding Clinic in Coolfield, Arizona, sharing essential rodeo skills such as balance, control, mental preparation, and injury prevention with community members and youth participants. The event strengthened community connections, preserved rodeo traditions, and reflected NTU Rodeo's commitment to outreach, mentorship, and inspiring the next generation of student-athletes while representing the university with pride.

## Spring 2025 Commencement

On May 16, 2025, Navajo Technical University celebrated its Spring Commencement at the NTU Wellness Center, honoring more than 90 graduates who earned degrees and certificates across a wide range of disciplines. Surrounded by family, friends, and community leaders, graduates were recognized in a ceremony that reflected NTU's mission of academic excellence, cultural grounding, and service to the Navajo Nation. The event marked an important milestone as students transitioned into careers, continued education, and leadership roles within their communities.



## Fall 2025 Commencement

On December 12, 2025, Navajo Technical University celebrated its Fall Commencement at the NTU Wellness Center, honoring graduates who earned degrees and certificates across multiple disciplines. Surrounded by family, friends, and community leaders, students were recognized for their academic achievements in a ceremony that reflected NTU's mission of blending academic excellence with Diné culture and values. The event marked a proud milestone for graduates as they move forward to serve their communities and pursue future opportunities.



## CDA Pathway Fall Celebration – Naaltsoos Bee Anoooséet Certificate Award Celebration

On December 19, 2025, the NTU Early Childhood Multicultural Education program hosted a Fall Celebration in Gallup, New Mexico, honoring students who completed the Child Development Associate Pathway and earned the Naaltsoos Bee Anoooséet Certificate. The event brought together students, faculty, alumni, and community members to celebrate academic achievement, highlight meaningful career pathways in early childhood education, and reaffirm NTU's commitment to supporting future educators who serve the Navajo Nation and surrounding communities.



## NTU's Free Food Distribution with La Planta Organization

On March 5, 2025, Navajo Technical University Peer Navigators, in collaboration with the La Planta Organization, hosted a successful food distribution event at the Wellness Center, providing free food to students, staff, faculty, and community members. The event distributed NTU's largest amount of food to date and highlighted strong partnerships, volunteer support, and a shared commitment to health, wellness, and food security. The initiative reflected NTU's ongoing efforts to support student success and strengthen community well-being through collaboration and service.





### **NTU at the 3rd Annual TCU Native Languages Summit!**

Navajo Technical University students and faculty represented the university at the 3rd Annual TCU Native Languages Summit in Rapid City, South Dakota, contributing to national discussions on Native language revitalization and sustainability. NTU student presenters shared research on integrating Diné Bizaad into machine learning and artificial intelligence, while faculty participation highlighted NTU's leadership in Indigenous language scholarship and innovation. The summit reinforced NTU's commitment to preserving Native languages through collaboration, research, and culturally grounded education.



### **AIHEC's 2025 Annual Legislative Summit**

From February 4–7, students from Navajo Technical University traveled to Washington, D.C., to advocate for Tribal Colleges and Universities and Tribal communities during the 2025 AIHEC Legislative Summit. Alongside students from TCUs nationwide, NTU representatives engaged with lawmakers, Native leaders, and peers to highlight the importance of Indigenous higher education, discuss opportunities such as internships and scholarships, and ensure Native voices and experiences remain visible at the national level.



### **Special Site Visit from U.S. GAO & NNWO**

On March 11, 2025, Navajo Technical University welcomed representatives from the U.S. Government Accountability Office and the Navajo Nation Washington Office for a campus visit focused on federal research funding and data-sharing practices. The visit included faculty research discussions, student perspectives, and a campus tour highlighting NTU's academic, research, and advanced manufacturing facilities, underscoring the university's role in expanding research capacity and advancing opportunities for Tribal Colleges and Universities.



### **NTU 12th Annual Research Day Competition**

On March 6, 2025, Navajo Technical University hosted its Twelfth Annual Research Day Competition at the Crownpoint campus, providing students from multiple disciplines an opportunity to showcase their research projects. The event recognized outstanding work by awarding cash prizes to the top three submissions.

## Another Successful Year at AIHEC 2025!

On March 8–12, 2025, Navajo Technical University students participated in the AIHEC Annual Student Conference in Rapid City, North Dakota. Forty-five NTU students competed among 34 Tribal Colleges and Universities, earning a total of thirteen awards across multiple academic, cultural, and athletic competition categories, highlighting NTU's strong student engagement and achievement at the national level.



## Many Farms High School Visits NTU

On January 22, 2025, students from Many Farms High School visited Navajo Technical University's Crownpoint campus for a guided tour highlighting academic programs, trades, and athletics. The visit introduced students to campus life, faculty, and hands-on learning opportunities, supporting NTU's ongoing efforts to strengthen recruitment pathways and student engagement.



## American Indian College Fund Campus Visit

On March 25, 2025, Navajo Technical University welcomed representatives from the American Indian College Fund for a campus visit highlighting NTU's academic programs, culturally grounded curriculum, and student support services. The visit included student and faculty engagement, program showcases, and discussions on scholarship opportunities, reinforcing the shared commitment to expanding access, supporting Native student success, and strengthening tribal higher education.



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# Alumni Highlight



## + Hansen Tapaha + Electrical Engineering

Hansen Tapaha, a native of Balakai Point, Arizona, Ganado High School alumnus, and member of the Tsi'naajinii (Black Streak Wood People) clan, is a first-generation college graduate and among the first recipients of a Bachelor's degree in Electrical Engineering from Navajo Technical University (NTU). After earning an associate degree from UNM–Gallup and overcoming significant personal and health challenges, he enrolled at NTU as one of the inaugural students in the university's Electrical Engineering program. While at NTU, Tapaha worked in the fabrication laboratory, represented the university at the Maker Faire in Washington, D.C., and completed internships at NASA's Johnson Space Center and the Army Research Laboratory. In 2018, he accepted a civil service position at the Army Research Laboratory in Huntsville, Alabama, where he works as a hardware integration engineer, exemplifying NTU's mission to prepare resilient, innovative leaders in science and technology.



## + Jasmine Charley + Biology and Mathematics

Jasmine Charley of Chi Chil Tah, New Mexico, is a proud Navajo Technical University alumna and first-generation student who earned a Bachelor of Science in Biology and an Associate of Science in Mathematics after graduating from Wingate High School. While at NTU, she distinguished herself as an AISES Region 3 Representative, NTU Student Senate President, and a National Society of Leadership and Success nominee, while also engaging in research opportunities at Los Alamos National Laboratory. Jasmine credits NTU's rigorous academics, leadership opportunities, dedicated faculty mentorship, and strong student support services for preparing her for graduate-level work. Now a PhD student in Biomedical Engineering at the University of New Mexico, she conducts research on developing biosensors to detect uranium on Native American lands and continues to collaborate with Los Alamos National Laboratory. Currently in her second year, Jasmine also serves as a Research Assistant in UNM's Computer Science Department, exemplifying how NTU empowers students to advance knowledge, serve their communities, and succeed in high-impact scientific careers.

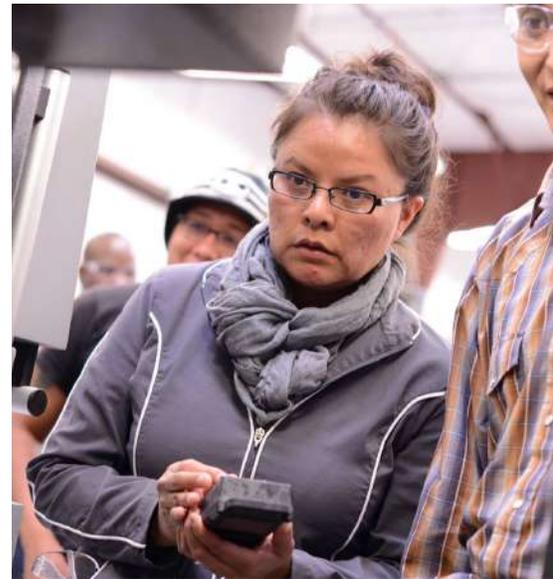
**+** **Makeiyla Begay** **+**  
**Biology**

Makeiyla Begay, originally from Sawmill, Arizona, and raised in Smith Lake, New Mexico, is a Navajo Technical University alumna and member of the Tábaahí clan, born for Hashk’aa Hadzohí, with maternal roots in Ma’ii Deeshgiizhnii and paternal roots in Gah Diné’ée Táchii’nii. She began her studies at NTU in the Veterinary program before transitioning to Biology under the mentorship of Dr. Irene Ane-Anyangwe. While at NTU, Begay participated in competitive summer research internships and collaborative projects, earning third place at NTU’s 11th Annual Research Competition and second place at the 2024 AIHEC Student Conference for her research on dielectric elastomer actuators and their applications in engineered motion and robotics. A Biology graduate, she began studying Veterinary Medicine at Colorado State University in fall 2024 and credits NTU’s faculty mentorship and research opportunities for preparing her for graduate-level success and a career dedicated to service and community impact.



**+** **Marcie Vandever** **+**  
**Advanced Manufacturing and Industrial Engineering**

Marcie Vandever, originally from Smith Lake, New Mexico, is a Navajo Technical University alumna whose career focuses on improving industrial production through efficient, safe, and cost-effective manufacturing processes. She began her studies at NTU in the Advanced Manufacturing Technology program and, through ABET-accredited pathways, became a dual major and research assistant supporting applied research, machinery, and advanced manufacturing software. A graduate of Thoreau High School and a dual-enrollment alumna, Vandever earned both an associate and bachelor’s degree from NTU and now works as a process engineer with Honeywell FM&T, a contractor for the U.S. Department of Energy’s Kansas City National Security Campus. Committed to giving back, she volunteers in local schools, coaches cross-country at St. Bonaventure, promotes STEM education, and continues her professional development through NTU, reflecting the university’s mission to prepare skilled leaders who strengthen industry and community.



**+** **Keanu Jones** **+**  
**Creative Writing and New Media**

Keanu Jones of Grand Falls, Arizona, is a 2020 graduate of Navajo Technical University’s Creative Writing and New Media program and a member of the Naakai Diné’ée clan, born for Tó Tsohnii, with maternal roots in Hashk’aa Hadzohí and paternal roots in Táchii’nii. After graduating from NTU, Jones gained experience with a small film production group before joining the Ke’Yah Advanced Rural Manufacturing Alliance (KARMA), a nonprofit organization focused on innovation and community development. He credits NTU with building the collaborative, organizational, and leadership skills that continue to guide his work and support community-focused initiatives. Jones remains committed to strengthening partnerships between NTU and KARMA to advance education, workforce development, and sustainable STEM opportunities for rural and tribal communities.



# Navajo Technical University Press Launched

NTU Press showcases scholarship, storytelling, and creative works that advance the Navajo Nation, highlight NTU voices, and elevate student writers and artists.

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The university launched Navajo Technical University Press this year. The press is dedicated to publishing work that furthers the interests of the Navajo Nation, Navajo Technical University, or acts as conduit to showcase work by student writers and/or artists. The *Miracle of Navajo Technical University*, which is available through the NTU's bookstore or through online booksellers, was the first book published by the press.

In essence, the book tells the story of how NTU achieved remarkable growth by serving its people, blending ancient wisdom with modern education, and becoming a model for sustainable tribal development and national benefit.

## Key themes include describing different aspects of the Navajo Technical University story:

- **Unique Model:** NTU blends traditional trades education with advanced academic research and cultural immersion, making it a unique institution.
- **Economic Empowerment:** It addresses generational poverty by creating pathways for future success, impacting the Navajo Nation and the U.S. through technology and economic development.
- **Cultural Integration:** The university is deeply rooted in Diné (Navajo) identity, language, and values, fostering a rich learning environment.
- **Resilience & Hope:** NTU stands as a beacon of hope, demonstrating how Tribal Colleges can achieve significant milestones and redefine what it means to be a TCU.
- **Call to Action:** The book aims to showcase NTU's success to encourage broader support for Tribal Colleges and Universities.

The press is currently moving forward with two new books: a Navajo-based children's book about honoring the environment called *High Desert Treasure*, written and illustrated by Daniel Vandever and spearheaded by Dr. Abhishek RoyChowdhury through a grant from NASA; and *Turquoise*, a collection of NTU student writing that has been through two editorial and design processes by separate ENGL 405 Student Anthology students and is scheduled to be completed for publication this Spring 2026 semester.





## Operations and Capital Projects

2025 saw several operations and capital projects either completed or initiated. A list follows:

### Campus Security and Safety:

- Campus-wind fencing has been undertaken and will be completed in 2026.
- Gated campus upgrades have been made in both Crownpoint and Chinle.
- Solar lights have been installed on the Crownpoint campus.
- The effort to improve sidewalks is ongoing.
- Facility master planning has been completed in both Crownpoint and Chinle.

### Academic Building and Instruction Facilities:

- The punch list for the new academic building is nearing completion.
- Move-in to the new building is scheduled for January after a blessing ceremony.
- The new nursing modular building has been completed and is awaiting power hookup from the electric utility Continental Divide.

### Housing Projects:

- Five trailers for faculty housing have been set up in Thoreau.
- Architectural and design work is underway for student housing.
- New card-operated washers and dryers have been installed in the dorms.
- Chinle housing work is underway and should be completed in 2026.

## Chinle Campus Improvements:

- Water and sewer installation completed for student and faculty housing in Chinle.
- Faculty and staff are now all located at the west campus, although a few programs are still operating on the east campus.
- Campus fencing is in progress.

## Major Construction and Renovation:

- The new interdisciplinary building construction will start in January of 2026.
- Old student union building demolition is ready to proceed in 2026.
- The trades building in Crownpoint is receiving heater upgrades.
- A new roof and new windows are being installed in the Crownpoint cafeteria.

## Custodial Services Improvements:

- Standardized cleaning chemicals have been adopted and implemented throughout university operations.
- New equipment has been purchased to improve efficiency and effectiveness.

## State Funding for Operations and Capital Projects:

- **Academic Building:** 4.5 million dollars
- **Safety and Security:** 1.7 million dollars
- **Interdisciplinary Building:** 11.6 million dollars
- **Early Childhood Center:** 5 million dollars
- **Demolition Projects:** 2.5 million dollars
- **Access Control:** 1.3 million dollars
- **Campus Improvement:** 1 million dollars





## Professional Development Activities

As part of its continuous improvement efforts, NTU has been actively engaged in several professional development activities for the faculty. An outline of those for 2025 are as follows:

### Campus Security and Safety:

#### A. Lecture Learning Series:

- **Date:** October 4, 2025 – December 5, 2025
- **Type:** Series of seven (07) lectures on Indigenizing AI
- **Objectives:** To introduce faculty to innovative AI applications integrated with Indigenous knowledge systems and perspectives.
- **Expected Outcomes:** Increased faculty awareness and understanding of AI's role in Indigenous contexts, fostering culturally responsive technological integration.

#### B. National Conference Attendance at the National Congress of American Indians (NCAI) and National Indian Education Association (NIEA):

- **Date:** NIEA: October 8–11, 2025, and NCAI: November 15–22, 2025
- **Type:** Attendance at national conferences focusing on AI and Indigenous Knowledge
- **Objectives:** To expose faculty to best practices, innovative programs, and networking opportunities related to AI and Indigenous perspectives.
- **Expected Outcomes:** Identification of relevant themes and initiatives to inform future institutional strategies, dissemination of knowledge among colleagues.

#### C. NIEA Professional Learning Series:

- **Date:** November 19, 2025
- **Type:** Virtual, self-paced professional development series titled *Community-Based Education through a Native Lens*.
- **Objectives:** To deepen faculty understanding of community-based education from a Native perspective through four online courses.
- **Expected Outcomes:** Strengthened faculty capacity to incorporate community-based, Indigenous-informed approaches into their teaching and outreach efforts.

#### D. Culminating Intergenerational Panel Discussion:

- **Date:** December 4, 2025
- **Type:** Panel discussion with local education leaders, faculty, and community.
- **Objectives:** To examine community-specific challenges and opportunities related to AI and Indigenous Knowledge, emphasizing cross-generational perspectives and solutions.
- **Expected Outcomes:** Strengthened partnerships between the community and the university, a clearer understanding of how AI adoption can be culturally relevant and respectful within Indigenous communities.

#### E. Faculty Book Study:

- **Date:** December 5, 2025
- **Type:** Faculty Book Study
- **Objectives:** To explore effective strategies for integrating AI into the classroom, emphasizing how educators can adapt teaching and guiding practices to incorporate AI and Indigenous learning principles.
- **Expected Outcomes:** Enhanced technological proficiency among faculty, development of practical strategies for AI integration that honor Indigenous knowledge.



Spokane, WA – From October 8 to 11, 2025, faculty from Navajo Technical University (NTU) participated in the National Indian Education Association (NIEA) annual convention and trade show. The 2025 theme, “Empowering Sovereignty: Our Legacies, Our Futures,” emphasizes the importance of culture, language, and community at every stage.



# Artificial Intelligence

## Artificial Intelligence (AI) at NTU

NTU faculty are advancing their understanding of AI through culturally grounded, Indigenous-centered learning.

### Accounting Department

NTU has been working with Harshwal LTD, an accounting firm, to implement AI solutions defined by the university to strengthen financial operations. This year one module was implemented. NTU has around 100 federal, state, and other types of grants that the finance department manages. Almost all of those allow Indirect Cost. However, the rules for Indirect Cost differ between some of the agencies granting the funds. Managing Indirect Cost is a difficult process since some expenditures from projects are eligible to trigger an Indirect Cost percentage and others are not. NTU at this point has successfully implemented a module that works interactively with Accounts Payable and whenever an eligible cost occurs, the module identifies that and then, using AI, subtracts the appropriate Indirect Cost from that federal budget and automatically transfers that to federal, state, or other system that reimburses the university for eligible expenses. This ensures that the university is realizing the benefit from Indirect Cost while following all the regulations surrounding Indirect Cost from each agency without error, helping cash flow as well as saving man-hours within the finance department.

### AI Tutor on Your Shoulder

The Center for Advanced Manufacturing is working with the College of Santa Fe to create AI - Tutor on your Shoulder - an AI guide for metal AM. This is a project that eliminates the need to open a manual that tells one what the buttons do but not how to adjust the buttons and knobs. The Tutor on your Shoulder will allow the technician to ask “how to accomplish a task”, and AI will provide a guided step by step methodology to accomplish the task. This is also machine specific, meaning that the AI will search for the task(s) as it relates to the specific machine the technician is working on.

### Academics

Realizing that AI is going to have significant impacts on instruction and learning, the faculty have been working to prepare themselves for this new era of higher education through a NTU Indigenous AI Learning Series and Faculty Book Study.

The AI learning series was developed by the AI Ad Hoc Committee led by Christine Reidhead and Prince Boahene. The series was comprised of six (6) sessions and a Faculty Book Study (focus group setting). The series was funded by the American Indian College Fund. The sessions were held October to December 2025.

The Indigenous AI Learning Series was offered to NTU professors to enhance their understanding of how Indigenous knowledge systems, storytelling, and philosophies can inform ethical and culturally grounded approaches to artificial intelligence. This series provided an opportunity for faculty to engage with leading Indigenous scholars and community leaders on topics such as data sovereignty, digital self-determination, and future visions for AI that align with Indigenous values. By participating, professors will have developed critical thinking, intercultural competency, and collaborative skills that support the integration of Indigenous perspectives into their teaching, research, and community engagement.



**Each session had a speaker who specialized in the topic:**

**Session One:** Protecting Our Indigenous Genomic and Health Data Right through AI, Machine Learning, and Dynamic Consent. Krystal Tsosie. 20 participants.

**Session Two:** Building Pathways in Indigenous AI Data Sovereignty, Curriculum, and Community Engagement. Ashley Cordes. 16 participants

**Session Three:** Navigating Digital Space in Indigenous Education. Christine M’Lot. 20 participants.

**Session Four:** Seeking Abundance: Integrating Indigenous Knowledge Systems and Artificial Intelligence. Jason Lewis. 15 participants

**Session Five:** Thinking Through Navajo Philosophy and Ethical Use of AI for the Future of the Dine’ People. Angelo Baca. 16 participants

**Session Six:** Indigenizing Intelligence: Tribal Digital Sovereignty, Governance, and the Future of AI in Indian Country. Traci Morris. 13 participants

**Faculty Book Study (Focus Group):** Daniel Vandever. 9 participants

## Funding for New Position in AI Achieved

During the last ABET accreditation visit, the accreditation team criticized NTU for having too few professors working in the Information Technology and Computer Science academic departments. In writing the new Title III project, NTU therefore asked for a position that will add a professor with AI expertise to working within those two departments. The position was funded, so NTU will be strengthening its instructional staff as well as adding AI expertise into its technology instruction in 2026.

# Academic Program Activities

Every year almost every academic program has special activities they are doing that helps build the strength of the university. Not all of these can be covered in this report every year. This is a selection of those activities for this year.

## Summary of Academic Accomplishment for the Year



### American Indian Higher Education Consortium (AIHEC)

On March 8-12, 2025, the AIHEC Competition Award Recipients took place in Rapid City, North Dakota. Forty-five (45) NTU students participated in the AIHEC Annual Student Conference. NTU received thirteen (13) awards in the following categories out of 34 tribal colleges and universities that participated in the following competitions

#### Archery

2nd place, Women's Team  
3rd place, Women's Single

#### Basketball

3rd place, Women's Team  
2nd place, Men's Team

#### Cybersecurity

2nd Place

#### Hand Games

1st Place

#### Scientific Oral

1st Place in Scientific Oral  
2nd place in Scientific Oral

#### Tribal College Student Writing

Film:

1st place

#### Volleyball

1st Place

#### 5k Run

3rd Place





## American Indian Business Leaders (AIBL)

On March 10-11, 2025, in Las Vegas, NV, the NTU Chapter of American Indian Business Leaders (AIBL) won a first-place award in the amount of \$1,000.00 during AIBL's National Business & Leadership Student Conference.

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## 3rd Literary Arts & Oral Stories Symposium (Shił Nahółne')

On April 18, 2025, Mathew Jake Skeets was named the 3rd Navajo Nation Poet Laureate for a two-year term. This event took place during the NTU's 3rd Literary Arts & Oral Stories Symposium (Shił Nahółne'), at Indian Pueblo Cultural Center, Albuquerque.

## NTU's launch a Bachelor of Science degree in Secondary Mathematics Education.

In April 2025, both the New Mexico Professional Practices and Standards Council (PPSC) and the Higher Learning Commission (HLC) approved NTU's request to launch a Bachelor of Science degree in Secondary Mathematics Education.

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## NTU Biology Alumna Takes Next Step Toward Veterinary Medicine at Colorado State University

One of the NTU biology graduates, Makeiyla Begay, was accepted into a veterinary program at Colorado State University.

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## NTU Nursing Program Status Shared with New Mexico Indian Affairs Committee

On July 16, 2025, the NTU Nursing Director, Dr. Cristina Carpenter, and Dr. Casmir Agbaraji, presented the status of the RN program to the New Mexico Indian Affairs Committee.



## NTU Signs MOU with Regional Partners to Expand Nursing and Educational Collaboration

NTU signed a Memorandum of Understanding (MOU) with the University of Arizona, University of New Mexico, Fort Defiance Indian Hospital Board, and New Mexico Nursing Education Consortium (NMMEC) for educational collaboration, i.e., research, curriculum development, grant opportunities, and clinical site agreement.



## SkillsUSA New Mexico State Leadership and Skills Conference (SLSC)

On March 26-29, 2025, the 2025 SkillsUSA State Leadership & Skills Conference (SLSC) was held in Albuquerque, NM. NTU students earned three (3) gold medals in restaurant service, photography, and job skills demo open; three (3) silver medals in automotive, job skills demo A, and cybersecurity; and three (3) bronze medals in prepared speech, job skill demo open, and job skill demo A.



### Gold Medalists:

- Angel Joe - Restaurant Service
- Dillon Dale - Photography
- Dillon Dale - Job Skills Demo Open

### Silver Medalists:

- Antonio Valencia - Automotive
- Karen Dan - Job Skills Demo A
- Jonathon Dennison, Shinaeya Watson - Cyber Security

### Bronze Medalists:

- AJ Velasquez - Prepared speech
- Pauline Mescale - Job Skill Demo Open
- Jasmine Charles - Job Skill Demo A

## **NTU Students Gain International Research Experience at CERN Through DOE-Supported Program**

From June 12 to June 23, 2025, Dr. Abraham Meles, an Associate Professor of Physics, along with two student researchers, Jocee Henderson (Biology) and Nicholas W. Retan (Information Technology), traveled to the European Organization for Nuclear Research (CERN) Laboratory in Switzerland as part of a summer internship program as proposed in the DOE grant. During this period, students engaged in research tasks, such as assembling nuclear radiation detectors, collecting large-scale data, and performing operational shifts to support ongoing physics experiments. Upon returning to NTU, the students will apply the skills and knowledge acquired during the internships to independently design and fabricate 3D-printed radiation detector components in the NTU Physics Laboratory.

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## **NTU Graduate Transitions from Classroom to Construction Industry as Electrical Apprentice**

A success story from one of the female electrical engineering graduates. “On July 23, 2025, I got hired as an apprentice with a contractor from Albuquerque. They are called Get Volts. I am working for them and taking classes with ABC. They recently got a contract to construct a new building for the UNM Gallup branch, so I am lucked out and will be staying local for my first project. The interview was intense. I had to do a competency test with all sorts of questions, but I did well. In my second interview, I met the project manager, and he asked me questions about 90-degree bends and what the take up was for  $\frac{3}{4}$  inch and 1 inch. He also asked me how to wire a 3-way switch. I was able to answer most of his questions correctly. I am glad you made sure to teach me about 3-way switches.”

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## **Six NTU Students Earn RVT Credentials After Passing the VTNE**

Six NTU students who passed the Veterinary Technician National Examination (VTNE) and now work as Registered Veterinary Technicians (RVTs) include the following:

1. Sandie Johnson
2. Selena Saunders
3. Krystal Louis
4. Nicholette Sharp
5. Roshawna Yazzie
6. Allysen Yazzie

## **NTU developed 2026-2030 Strategic Plan with the following four priorities:**

1. Financial Stability and Communication
  2. Infrastructure, Safety, and Security
  3. Academic Excellence and Student Success
  4. Online Learning and Academic Technologies
- 

## **NTU Academic Master Plan Drives Creation of Three New Academic Schools**

NTU developed 2025-2030 Academic Master Plan, which leads to creation of three additional departments, namely, School of Education, School of Health Sciences, and School of Culinary Arts, Hospitality, and Tourism.



## Moved to the new Chinle Instructional Site

On November 18, 2025, Chinle students and employees moved to the new site at 1/4 W Highway 191, BIA Route 102, Chinle, AZ 86503.

### Chinle steel building: 6,000 square feet

- 5 classrooms, 1 computer lab, a mini library.
- One story building has 5 classrooms, 1 computer lab with 24 computers, 1 library with 5 computers, 2 office spaces for instructors and 1 security office. Also has 2 restrooms.

### Chinle two story building: 20, 000 square feet (SF)

- 1st floor houses the IT office, bookstore, 1 computer lab with 10 computers, 1 tutoring room, and 4 classrooms.
- 2nd floor housed the chemistry lab, biology lab, 3 classrooms, 2 restrooms and 2 study rooms.
- Seven (7) modular buildings provide classrooms and office spaces.
- An environmental lab is being constructed.

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## Biology

### Enrollment

The Semester started with a major increase in enrollment in biology from 17 to 34 students.

### Visit to the Yale College of Medicine

Sponsored by the Yale College of Medicine, 6 biology Students, 3 Faculty one staff, and the Director of the Chinle Campus visited the Yale College of Medicine from April 3 to April 5, 2025. The intention was to prepare students in the medical track offered at NTU, helping them to prepare for application into a medical school. The strength of the pre-med track has been becoming increasingly effective at attracting students into the biology program.





## Environmental Science and Natural Resources

Environmental Science and Natural Resources continue to deliver significant results for students and the research agenda. Some of the successes this year include:

1. We are completing a grant that surveyed for the Pinyon Jay on the Navajo Nation over the past 3 years; the grant ends in December 2026. The grant was funded to get an assessment on the population of Pinyon Jay on the Navajo Nation and this data has been added to the national database. We won this grant with NAU Flagstaff, and it was for \$498K.
2. A grant was recently awarded to study the Pinyon Pine genome throughout its range, with specific emphasis on the Navajo Nation. Included in this grant is to conduct genetic analysis using mitochondrial DNA to determine if radioactive abandoned uranium mining sites have affected Pinyon Pine. We intend to sample pinyon pine from radioactive sites on the Navajo Nation and compare these with control (non-radioactive) sites. The total amount of the grant is \$649K over three years and was awarded two months ago.
3. There are currently four graduate students at the University of Idaho, with three working on their master's degrees, and one, Dalyna Hannah, about to complete her PhD. The others are Malynra Tome, Chris Whitehorse, and Chase Bebo. One student, Randy Largo is now in graduate school at Colorado State University.
4. A DOE-funded project led by the NTU Environmental Science program successfully installed a 300 gallon-per-day capacity water filtration system for public use at Becenti Chapter in Summer 2025. Other chapters will receive similar filtration systems during 2026.
5. A NASA-funded project led by the NTU Environmental Science program published a book titled "High Desert Treasure" (ISBN: 978-1-964157-04-7). This book will be distributed at various Navajo Nation schools for free.
6. The NTU-NMT Navajo Nation Water Purification Project (N4WPP) held its annual high school water symposium, its fourth and most successful, on October 24, 2025, at NTU Crownpoint campus. This symposium was attended by over 175 participants including 145 high school students and teachers.



## The Center for Advanced Manufacturing (CAM) has been active in Education, Research, Workforce training and Economic Development

CAM provides students and interns hands-on access to advanced manufacturing technologies, enhancing engineering education through real-world experience.

**Education:** The CAM has been working within NTU to provide access to some of the most sophisticated advanced manufacturing equipment in the state of New Mexico. The CAM continues to work with students and interns and engage them in the technologies used in advanced manufacturing providing them value added hands-on experience in addition to their engineering education. Currently, there are six interns working at the CAM learning the metal AM ecosystem.

**Research:** The CAM helps not only NTU students and faculty with research projects but also partners with other major Universities in research. NTU faculty such as Anasuya Vellingiri, Asst. Professor on Building Information Modeling, has utilized the CAM to facilitate concrete research with students which included CT scanning and compression testing of concrete samples. Another group of students worked with Adriene Tenequer, Materials Lab Coordinator to test the fibers of sumac used for weaving baskets.

The CAM has been working extensively with Virginia Tech and Rowan University under a NIST proposal to explore the effects of changing build parameters in the Z direction of metal AM builds often referred

to as functional grading. The group is using an SLM machine to build these test samples, NTU CT Scans the tensile samples and Rowan University mechanically tests the samples. Eventually, NTU will be fatigue testing some of the samples.

The CAM also works with Rowan University to establish a new ASTM standard for materials testing standard specimen. Rowan University is working with partners that include DARPA, NAVSEA, NASA and NTU to create new Spark Plasma Sintered (SPS, another metal additive manufacturing process) parts which need wire EDM processing. The group has relied on NTU to figure out the methodologies to process samples – it is one thing to be able to produce the materials, but it also needs to be able to be machined. Gregory Dodge has worked with student intern Ritchie Kaibatoney to process these samples. NTU is contributing to the development of new standards in additive manufacturing.

**Workforce Training:** The CAM is currently creating and has created several training modules suitable for online training for Metal AM Powder Safety Handling, the Optomec DED system and the CT Scanner. This training includes online videos, assessment and VR Training. The CAM is also working with Ridgeline Manufacturing to host interns and apprentices at the Ridgeline facility. The partnership is going to be training participants from the greater Albuquerque area to expand the metal AM and related workforce to support and grow metal AM and supporting services within New Mexico. Significant numbers of Navajo people live in the greater Albuquerque area, and this partnership will allow for more Navajo and non-Navajo people to be reached. This will help with the workforce needed as NAME expands in the future. NAME will need workers who can operate CAD programs, conduct machining operations (CNC and EDM), metal AM machine set up and operation, metal AM post processing, metal AM powder manufacturing, CT Scanning/Metrology and materials testing. The workforce training will be provided at both Ridgeline and at the CAM to serve a greater number of participants.



*NTU staff proudly advance our mission by providing students and interns hands-on access to CAD/CAM technologies—turning innovation, engineering, and real-world experience into opportunity.*



## Formation of Iina LLC

The Board of Regents formed Iina, an LLC to launch Navajo Advanced Manufacturing and support workforce training and future commercialization.

One of the most significant efforts undertaken by the Board of Regents this year was the formation of an LLC, or Limited Liability Corporation, Iina. Iina is intended to be a holding corporation that will contain several enterprises under its umbrella.

The first of the enterprises will be Navajo Advanced Manufacturing, which will be attempting to jumpstart a whole new industry for the Navajo Nation. The CAM effort to establish a Navajo presence is part of that effort, although it is initially working to develop a workforce training program. By the end of 2026, Iina is expected to have a Board of Directors in place and to be making sales of powder manufacturing for Advanced Manufacturing metal AM machines as well as doing custom CT Scanning/Metrology and materials testing to a variety of customers, including national laboratories, the federal sector, universities, and businesses and manufacturers in the private sector.



## Early Childhood Teacher Education

Over the past five years, the ECME department has strengthened teacher preparation by aligning the program with state licensure requirements and improving student readiness.

Over the course of the past five years the ECME department has been actively working on restructuring the program to provide high-quality early childhood teacher education preparation. The program is the second largest enrolled program averaging 115-130 students each semester. Addressing preparation concerns noted with former students during the time they matriculate into Student Teaching, the program audited student degree checklists and enforced state licensing requirements to ensure students adhere to the appropriate practicum and program requirements. Through these efforts the following initiatives have been developed and implemented:

- Hired a Program Director and Assistant Director to guide the program through seeking grant funding to support programming while alleviating faculty workload.
- Grants from the Office of Head Start, the American Indian College Fund, W.K.Kellogg, and NM-ECECD have allowed the program to pilot positions (capacity development), provide student support services (tuition, textbooks, hardship assistance [gas/food cards], tutoring), professional development for staff and faculty and strategic planning workshops, to name a few.
- The Office of Head Start-TCU Partnership grant is in its final year of funding. The intention of the grant was to partner with NN-Head Start to increase the number of certified early childhood educators in Head Start, by graduating: 143/150 students in the CDA Pathway (Boot Camp). These students move on to the AS/BS programs.

## Capacity built into the program for quality of programming and student support:

- Program Director, Assistant Director, Program Coordinator, Academic Coach, 3 adjuncts for Boot Camps, Field Placement Supervisor (directly supervises Bachelor level practicum/Student Teachers)
- Received IGA funding from NM-ECECD to provide financial assistance to seek national accreditation with the National Association for the Education of Young Children. Funding paid for the application, site visit, conference travel, workshops and stipends for faculty.
- Additional IGA Funding from NM-ECECD has supported the program in visiting NM Language Immersion programs and lab schools and to develop a plan to implement a Language Immersion Lab School at NTU. NTU President, Dean, the ECME team and two students visited two immersion schools and 1-lab school, in May 2025.
- The ECME program has been awarded early childhood funding by the state to seek lab school initiatives.
- The ECME Program has an MOU with Jemez's Education Department to strengthen and build partnerships with the University of Hawai'i to develop a two-year Indigenous Teacher Language Certification program.
- ECME Program Directors and NTU Provost attended a week-long visit to Hilo, Hawai'i with Jemez's 11 party delegation (NM-ECED, NM-HED, UNM Cradle to Career, W.K.Kellogg, JED, and Mascelaro Head Start), to tour language immersion schools, cultural programs, Hawai'i PED, and the The University of Hawai'i at Hilo (UH Hilo) Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language to begin envisioning programs for the Pueblos, Tribes and Nations in New Mexico.



*Our students and staff actively support the program and continually seek new initiatives to expand and strengthen it.*



## Information Technology (IT) at NTU

NTU is advancing secure, scalable, and resilient IT systems to support students, faculty, and future innovation

The Navajo Technical University Information Technology Office is advancing a coordinated modernization effort focused on security, resiliency, instructional technology, and scalable connectivity to support the university, its students, and the broader Navajo Nation. These initiatives strengthen core systems while positioning NTU for future research, teaching, and community engagement, and they are being delivered by a small, highly skilled, professional IT team.

The IT Office continues to support and optimize NTU's Enterprise Resource Planning (ERP) environment while modernizing campus infrastructure. We redesigned the CCTV system as a dedicated, Software Defining Network (SDN), with approximately 90% of buildings now connected back to centralized CCTV servers via 10 Gb links. The next phase will integrate an Axis access control system to create a unified physical security platform.

Cybersecurity is a major institutional priority. IT is currently building a Cybersecurity Center, expanding internal expertise through advanced training, and protecting student accounts during the migration from the student subdomain to the university's primary domain. This transition strengthens identity management, improves security posture, and enhances institutional marketability while maintaining uninterrupted student access. We are also exploring Virtual Desktop Infrastructure (VDI) to centralize endpoint security and updates while preserving flexibility for faculty and staff research.

Instructional and campus technologies continue to improve through the deployment of large-format interactive classroom displays, upgraded audio-visual infrastructure, and initial designs for Direct View

LED display walls in coordination with the Marketing Department. Network upgrades include ongoing expansion of single-mode fiber, transition to Wi-Fi 6 and Wi-Fi 7, and continued investment in high-capacity, reliable campus connectivity.

Beyond campus, NTU supports a 10-site community wireless broadband initiative using state-of-the-art wireless technology proven in both non-line-of-sight and high-capacity deployments. The university also operates a 100 Gb fiber connection to New Mexico's primary internet exchange, providing strong research and education network capability. Redundancy efforts include a 10 Gb internet upgrade at the Chinle campus, a 10 Gb interconnection between Chinle and Crownpoint, and a planning grant application to revitalize a microwave network capable of up to 5 Gbps as a last-resort backup path.

The IT Office is also supporting mission-critical initiatives, such as the Navajo Nation's Missing and Murdered Relatives project, by planning secure server-farm infrastructure, while partnering with academic programs to develop dedicated training environments, early-stage AI compute clusters, and future AI expansion.

This work is being accomplished by an IT organization comprising of a Network Manager, a System Administrator, four technicians, a Telecom Technician, and a Jenzabar Analyst. While strategic growth in key areas will be significant, the current team's expertise and efficiency allow NTU to operate and modernize at a level typically associated with much larger IT organizations.



*The NTU IT Department and tower power innovation across our campus, pushing boundaries and opening new possibilities for our students and future initiatives.*



## Online Learning

NTU strengthened online learning by improving retention, faculty engagement, and cross-department collaboration through data-driven strategies

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Online learning has continued to be an important segment of the enrollment. The Online Learning Department's efforts this term focused on improving student retention, increasing faculty engagement, addressing technological barriers, and fostering collaboration across NTU divisions. Through data-driven decisions, survey feedback, and cross-departmental initiatives, NTU is working to create a more cohesive and supportive online learning environment.

### **During Fall 2025, the department focused on:**

- Enhancing the student onboarding experience
- Improving online course quality and faculty development
- Strengthening student support and engagement
- Addressing technology and accessibility barriers
- Promoting data-driven decision-making and interdepartmental collaboration

During the year Dr. Colleen Arviso continued to be a leader in the online education field. She was elected to the National SARA Advisory Council for a two-year term, representing Tribal Colleges and Universities (TCUs) in national online education policy discussions and served in several other roles regionally and nationally.



**16**  
**ONLINE**  
**PROGRAMS**  
UNDERGRADUATE & GRADUATE

**NTU offered 16 fully online programs in Fall 2025, including the newly launched Bachelor of Science in Accounting.**

- Blackboard Ultra implementation achieved a 92% satisfaction rate among faculty and students.
- Course shell templates were redesigned to align with Quality Matters (QM) standards, ensuring consistency, accessibility, and engagement across all online courses. Faculty Development and Instructional Design
- 164 faculty members completed Blackboard Essentials or Online Teaching Essentials training.
- 43 qualified online instructors taught during Fall 2025.
- Faculty workshops emphasized culturally responsive pedagogy, regular and substantive interaction, and ADA compliance.
- The department expanded its instructional design capacity by hiring Dr. Carissa Johnson as a full-time Instructional Designer to assist with accessibility audits and course design.
- Assisting faculty with course design, accessibility, and Blackboard Ultra.
- Working individually with faculty members.
- Compiling a comprehensive list of resource updates and onboarding improvements. Prioritizing tasks to maximize effectiveness based on faculty comfort levels with Blackboard.
- NTU built a strong partnership with Doug Wagner, Customer Success Manager at Anthology (Blackboard), to address concerns, requests, and needs. This enables NTU to stay informed about the latest resources and find opportunities to improve the learning platform.

### **Onboarding and Student Support Enhancements**

- The Fall 2025 term marked a major step forward in NTU's efforts to strengthen student onboarding and early engagement. Blackboard Orientation for Learners
- A mandatory 1–2 hour Blackboard Orientation course was developed to launch in Spring 2026.
- Modules include Blackboard navigation, communication tools, assignment submission, and feedback review.
- The Online Learning department is working on securing incentives for students who successfully complete the orientation course; funding remains a concern. Online Learning Webpage Redesign (Student Resources)
- The Online Learning webpage was redesigned for improved accessibility and navigation, featuring embedded welcome videos, updated resources, and a layout aligned with NTU branding and accessibility standards.

### **Scheduled for launch before Spring 2026.**

- Replacement of Outdated Tools
- The Advance Design Orientation Tool was discontinued due to low utilization. It was replaced with an in-house onboarding system integrated directly into Blackboard, centralizing student resources and reducing confusion caused by multiple platforms.

The major task during 2026 will be to reinvigorate the recruitment effort for online learning while continuing to work at improving retention rates.



## The Chinle Nursing Assistant Program

The Chinle Nursing Assistant Program was released from probation and demonstrated significant gains in student certification outcomes

For the first time since 2019, the Chinle Nursing Assistant Program was officially released from the Arizona Board of Nursing Probation based upon its successes and positive student outcomes during the past couple of years.

In 2025, the program held three classes with a total of 25 students completing both NRS 101 and NRS 102. Twenty-four out of twenty-five students took their Arizona Certification exam. The 2025 pass rates for the Knowledge Exam were 91.67%, and for the Skills Exam, 87.5%. Compared to the last couple of years, this is a significant improvement. In 2023, the pass rates for the Knowledge Exam were 47%, and for the Skills Exam, 65%. In 2024, the pass rates for the Knowledge Exam were 69.23% and the Skills Exam, 82.05%.

With the help of its RN Consultant, the Chinle Nursing Assistant Program has prioritized the training of its new instructors. The program follows a standardized curriculum, which helps ensure students receive the knowledge and skills instruction needed to be successful. The instructors, Candace Tallis and Trina Mathis, have gone above and beyond to help students succeed. The Program Coordinator, Krista Haven, RN, provides oversight of the program and assists the instructors as needed. The Program Assistant, Karinne Dohi, has been essential in supporting the instructors and students.

The program has also been venturing out in the community. In July, the summer class CNA students participated in a community event and provided blood pressure screenings under the supervision of their instructor. This event provided an opportunity for them to gain valuable community health experience and generate publicity for the program.

The program also started a new tradition: a pinning ceremony for Nursing Assistant graduates in the summer and fall semesters. This ceremony is a great way for graduates to finish the class and share their accomplishments with family and friends.



## NTU Microelectronics Starter Lab

This initiative supports workforce development in microelectronics to expand career pathways on the Navajo Nation.

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One of NTU's newest projects is the effort to establish a Microelectronics Starter Lab to train Navajo students for high-demand technician and engineering pathways in the semiconductor and broader electronics sectors. The lab will seed hands-on skills (measurement, troubleshooting, assembly) that align with CHIPS-era workforce demand and NTU programs in Advanced Manufacturing, Engineering, and Energy Systems, while building a direct bridge to regional employers and national labs.



Sandia Laboratories in Albuquerque is partnering with NTU on this effort.



## NTU Building Construction Micro credential Summer Program

This CBEN-supported program advances NTU micro-credentials to strengthen workforce readiness across the Navajo Nation.

In January 2025, the Navajo Nation received a grant from the Competency Based Education Network (CBEN) organization to support the development of the NTU Micro-credential program under the name of the Navajo Nation Workforce Transformation Initiative, with Dr. Colleen W. Bowman, NTU Provost, designated as the PI. Aspire Ability and CBEN were among the program's original architects. Council Delegate Carl Slater designated Dine College and Navajo Technical University as the higher education designees to create and offer the training required for the tribal workforce.

The inaugural cohort for the micro-credentials in Building Construction launched on June 9, 2025 with six (6) participants. The NTU Enrollment department, Welding and Construction Technology programs with assistance from CBEN worked together to produce the Building Construction training. Tom Bebo was the instructor for the training with Kirby Chapo assisting and Chris Storer was the C-Ben onsite representative. The training consisted of six courses: Intro to Craft Skills, Construction I, Construction Math & Drawing, Construction II, Concrete and Masonry Construction, and Construction Site Practicum. The final week was the Capstone Project, which was to build a Navajo tiny-hogan. The target was 10 participants. Eight applications were submitted; two withdrew based on their schedules; Six participants were selected. Six students successfully completed weekly NCCER testing, OSHA-10 certification and earned 22.7 CEUs. Graduation was held on August 13, 2025. Four (4) industry partners attended and spoke to the graduates. Navajo Nation Council Delegate Carl Slater provided the keynote address.

The Building Construction training was created to broaden the knowledge and prepare students for both trade and entry-level management in the construction industry within the state and national level. In addition to obtaining technical skills, students completing the program will have developed competence in advanced critical thinking, career development, applied academics, and leadership skills required for Building Construction occupations. The Building Construction training is comparable to a first-year apprenticeship that is offered by the chapters of the Associate Builders and Contractors (ABC), Associated General Contractors (AGC), the National Association Home Builders (NAHB), and other professional organizations, as well as private businesses (private contractors).

# Efforts to Strengthen Operations at Teec Nos Pos and Kirtland

This project proposes a permanent NTU campus to address space, infrastructure, and program growth limitations in the Northern Agency region.

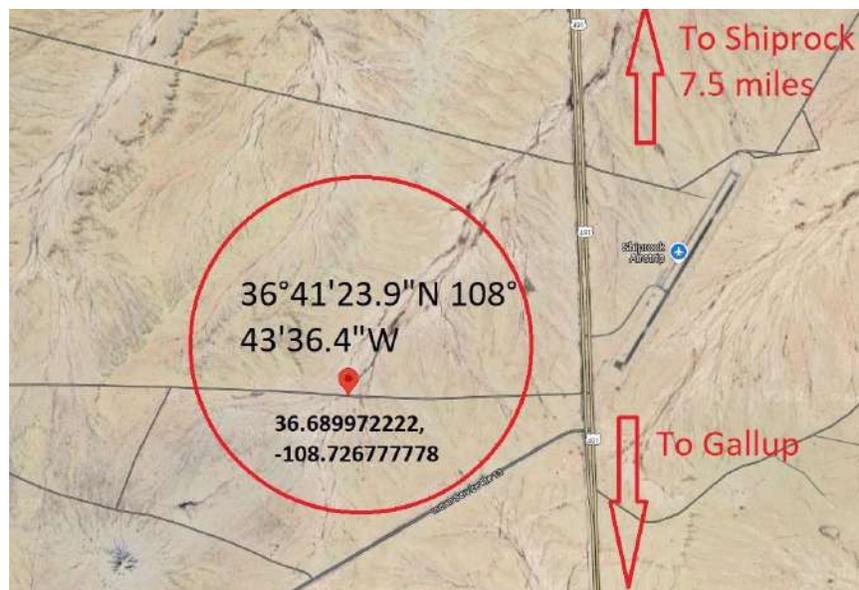
Navajo Technical University (NTU) operates instructional sites in Teec Nos Pos, Arizona, and Kirtland, New Mexico, serving students from northern Arizona, southeastern Utah, and northern New Mexico. Both sites currently face significant limitations that restrict program growth, particularly in trades education, due to space constraints, unreliable infrastructure, and the fact that NTU does not fully control the land or facilities at either location.

The Teec Nos Pos site lacks adequate space, reliable internet connectivity, and appropriate laboratory facilities. The Kirtland site, located on the Central Consolidated School District's Bond Wilson Technical School campus, is primarily used for dual-credit instruction during school hours, limiting NTU's access to classrooms and labs and preventing daytime program expansion.

To address these challenges, NTU is considering a proposal from the Annie King family of Shiprock to transfer a portion of a grazing permit for educational use. The proposed site, located near the junction of U.S. Highway 491 and the road to Red Valley, Arizona, includes approximately 100 acres and would allow NTU to consolidate both instructional sites into a single campus. This consolidation would enable expanded enrollment, enhanced trades and advanced manufacturing programs, and increased research and revenue-generating opportunities for NTU.

The project requires land transfer approval, environmental and archaeological clearances, and infrastructure development. Two existing homesite leases within the property would be accommodated. The initiative is led by NTU's leadership team and requires approval from the NTU Board of Regents, with ongoing coordination and updates provided to Chapter leadership. The long-term goal is to develop a permanent instructional site that delivers high-quality, affordable education and workforce training close to home.

**Image Below is proposed site location of Northern Agency Instructional Site:**



# 2025 Publications

## JOURNALS

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**Arunkumar, G., Deepa, A., & Singla, Y. K.\* (2025).** A review on magnetorheological elastomers and piezoelectric materials to control vibration and harvest electrical energy. *Journal of Electroceramics*. <https://doi.org/10.1007/s10832-025-00419-8>

**Badru, R., Verma, K., & Singh, A. (2025).** Challenges, future perspectives, and emerging trends in COFs research. In P. Jain & S. Raghav (Eds.), *Applications of covalent organic frameworks in environmental remediation* (1st ed.). CRC Press. <https://doi.org/10.1201/9781003605386>

**Basu, P., Verma, J., Abhinav, V., Ratnesh, R. K., Singla, Y. K., & Kumar, V.\* (2025).** Advancements in lithography techniques and emerging molecular strategies for nanostructure fabrication. *International Journal of Molecular Sciences*, 26(7), 3027. <https://doi.org/10.3390/ijms26073027>

**Bati, Y., Nkongolo, N.V., Angbandima, B., Etutu, R., & Nshimba, S. (2025).** Comparative analysis of floristic diversity in primary and secondary forests at the IFA–Yangambi Experimental Plot, Ituri Forest, D.R. Congo. *Trends in Agricultural Sciences*, 4(4), 350-366. <https://doi.org/10.17311/tas.2025.350.366>

**Bati, Y., Etutu, R., Nshimba, S & Nkongolo, N.V.. (2025).** Effets des différents types d'occupation des terres sur les propriétés physico-chimiques du sol du site expérimental de l'IFA-Yangambi situé au PK-41, Route Nationale Tshopo-Ituri, RD-Congo. *Revue d'Agronomie Tropicale & Environnement*, 1(2), 68-78. <https://doi.org/10.5281/zenodo.17752530>

**Bose, S., Uniyal, A., Mishra, S. K., Ranakoti, L., & Singla, Y. K.\* (2025).** Computational analysis of submerged ultrasonic welding of carbon-fibre reinforced polyamide using multi-shape energy directors. *International Journal of Advanced Manufacturing Technology*. <https://doi.org/10.1007/s00170-025-16783-2>

**Bragta, D., Garg, P., Chaudhary, S., Madhok, G., Negi, S., Panwar, S., Singh, A., & Kumar, R. (2025).** Eco-friendly biosynthesis of ZnO nanoparticles using fungus *Schizophyllum commune* and their hybrid with chitosan for enhanced UV-A photocatalytic degradation of tetracycline. *Chemosphere*, 387, 144666. <https://doi.org/10.1016/j.chemosphere.2025.144666>

**Denk, L. & Chee, M. R. (2025)** A Navajo Corpus of Historical Narratives. <https://digitalrepository.unm.edu/navajocorpus/1>

**Dewang, Y., Sharma, V., Baliyan, V. K., Soundappan, T., & Singla, Y. K.\* (2025).** Research progress in electro-active polymers for soft robotics and artificial muscle applications. *Polymers*, 17(6), 746. <https://doi.org/10.3390/polym17060746>

**Dewang, Y., Sharma, V., & Singla, Y. K. (2025).** A critical review of waste tire pyrolysis for diesel engines: Technologies, challenges, and future prospects. *Sustainable Materials and Technologies*, 43, e01291. <https://doi.org/10.1016/j.susmat.2025.e01291>

**Gupta, A., Singh, J., Chhibber, R., & Singla, Y. K. (2025).** Investigation of element transfer and microhardness in weld beads using formulated  $\text{Na}_3\text{AlF}_6\text{-CaO-Al}_2\text{O}_3\text{-SiO}_2$  coatings for SMAW nickel wire. *Materials Science and Technology*. <https://doi.org/10.1177/02670836251395499>

- Gupta, A., Singh, J., Chhibber, R., & Singla, Y. K. (2025).** Quantitative analysis of thermal properties in SMAW electrode coatings based on  $\text{CaF}_2\text{-Al}_2\text{O}_3\text{-CaO-SiO}_2$  using regression models. *International Journal of Advanced Manufacturing Technology*, 140, 1731–1747. <https://doi.org/10.1007/s00170-025-16364-3>
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- Kakuni, M.M., Kombele, B., Nkongolo, N.V., Kalenga, K & Mukandama J. P. (2025).** Fonctions de pédotransfert de prédiction des stocks de carbone organique dans les sols de plateau de l'anthroposphère de Kisangani. *Revue d'Agronomie tropicale & environnement*, 1(1), 28–36. <https://doi.org/10.5281/zenodo.15581301>
- Kaur, A., Singh, Y., Singh, A., Kaushal, S., & Badru, R. (2025).** Efficient and selective N-benzoylation of amines using Pd-doped La-BDC MOF. *Materials Advances*, 6, 5196–5209. <https://doi.org/10.1039/D5MA00372E>
- Lin, J.-T., Chung, Y.-P., Wu, T.-L., Lin, W.-C., Sriram, B., Wang, S.-F., Praveen, S., Soundappan, T., Kogularasu, S., & Chang-Chien, G.-P. (2025).** Empowering early detection of prostate cancer: A point-of-care biosensing perspective. *Microchemical Journal*, 215, 114538. <https://doi.org/10.1016/j.microc.2025.114538>
- Mishra, S., Chhibber, R., Yazzie, T., Soundappan, T., & Singla, Y. K. (2025).** Development of high-basicity SMAW electrodes for dissimilar welding of duplex stainless steel 2205 and API X70 pipeline steel. *Journal of Materials Research and Technology*. Advance online publication. <https://doi.org/10.1016/j.jmrt.2025.11.154>
- Nkongolo, N.V., Liotho, J & Mokea, D.A. (2025).** Soil properties related to carbon dioxide (CO<sub>2</sub>) emissions in a primary and fallow forests at Masako Forest Reserve, Democratic Republic of Congo. In: Çiner, A., et al. *Recent Research on Environmental Earth Sciences, Geomorphology, Soil Science, Paleoclimate, and Karst*. MedGU 2023. Springer, Cham, pp 255-259. [https://doi.org/10.1007/978--031-86866-5\\_41](https://doi.org/10.1007/978--031-86866-5_41)
- Patil, B.M., Burkpalli, V. (2025),** Performance evaluation of the classifiers based on features from cotton leaf images. *Multimed Tools Appl* 84, 37167–37190. <https://doi.org/10.1007/s11042-025-20670-z>
- Sekhar, P., & Soundappan, T. (2025).** Sensor reproducibility: Challenges, solutions, and generic model. *The Electrochemical Society Interface*, 34(1), 45–48. <https://doi.org/10.1149/2.F082511F>
- Singh A. & and Frey T (2025).** Sonographic Evaluation of Funiculitis Associated with Acute Scrotal Pain. *Indian Journal of Applied radiation*, Volume 11, Issue 1 – 2025. [www.opensciencepublications.com](http://www.opensciencepublications.com)
- Singh, P., Singh, A., Saini, R., Yadav, D., Kulriya, P., & Kumar, R. (2025).** Advancements in graphene-based nanostructured conducting polymer hybrid composite electrodes for high-performance supercapacitors. *Journal of Power Sources*, 236176. <https://doi.org/10.1016/j.jpowsour.2025.236176>
- Book Chapters
- Raghuvanshi, N. S., Singla, Y. K., & Kumar, A. (2025).** Battery thermal management system (BTMS) and recent advancements. In *Thermal battery management system for hybrid and electric vehicles*. Wiley-Scrivener. <https://doi.org/10.1002/9781394289233.ch1>
- Singla, Y. K., & Aasa, S. A. (2025).** Rail–wheel interaction. In *Railway engineering technology: Developments and innovations*. CRC Press. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003659983-3>

## EDITED BOOKS

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Kumar, A., Awasthi, M. K., Dutt, N., Singla, Y. K., & Thangavel, S. (Eds.). (2025). Thermal battery management system for hybrid and electric vehicles. Wiley-Scrivener. <https://doi.org/10.1002/9781394289233>

## INVITED/EXPERT LECTURES

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Singla, Y. K. (2025, September 29). Grinding operation – Conventional and advanced [Guest lecture]. Department of Mechanical Engineering, G. H. Rasoni College of Engineering & Management, Nagpur, Maharashtra.

Singla, Y. K. (2025, September 20). From CAD to 3D printing: A digital workflow in modern manufacturing [Expert lecture]. Institution's Innovation Council, Apex Group of Institutions, Jaipur.

Singla, Y. K. (2025, May 23–27). Energy efficiency in manufacturing [Invited talk]. Self-Financed One-Week Online STTP “Sustainable Energy Innovations: Advancing Renewable Systems for Net-Zero Future,” NIT Jamshedpur.

## CONFERENCE SESSION

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Singla, Y. K. (2025, August 28–29). Session chair, Technical Session No. 5. International Conference on Global Climate Action: Strategies for a Sustainable Future (CCASSF 2025). NITTR Kolkata.

## FUNDED PROJECTS IN 2025

---

Han, S. TSETS: Tribal Steppingstones in Educational Transformative STEM: A TCU-Led Secondary and Middle School Teachers Mathematics Networking Strategy

**Amount Obligated by this Amendment:** \$300,000

**Project Duration:** May 2023-April 2028

Singla, Y. K., (Co-Principal Investigator). Emergency response and access mapping for rural Navajo communities [Funded research project]. U.S. Department of Transportation (USDOT); Navajo Technical University.

**Funding amount:** \$118,185.43.

**Project duration:** January 2026–December 2026.

Soundappan, T. Advancing Food Security and Capacity Building in the Navajo Nation Through Research in Quantum Sensing

**Award Amount:** \$649,952.00

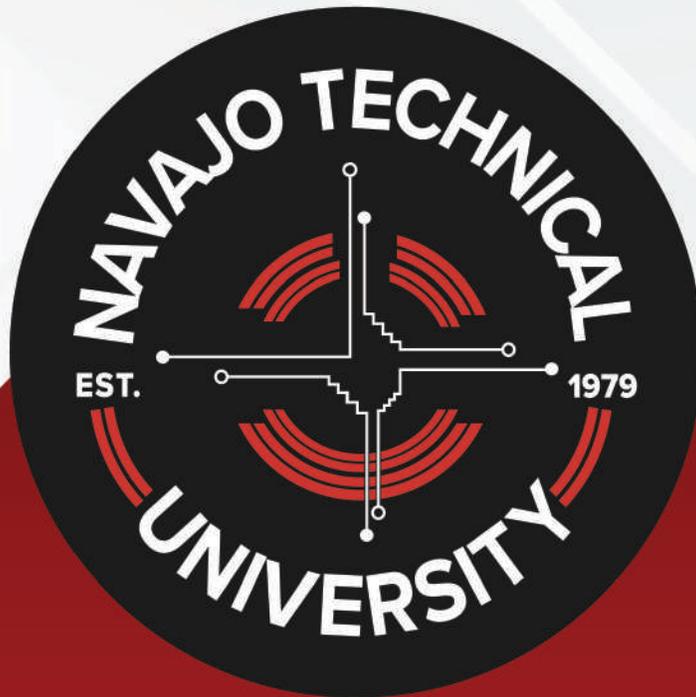
**Project duration:** December 2-25-December 2028

# NTU Strategic Plan 2026 - 2030

The Board of Regents approved a new strategic plan that will be implemented at all NTU locations for the next five years. The plan's priorities were established based on information collected from were established from information collected at listening sessions held by the Committee on Institutional Effectiveness (CIE) over two years at each of NTU's five locations. The plan is aimed at strengthening the culture and integrity of NTU; increasing the diversity of Navajo communities; and improving the university with a variety of innovative programs.

## THE STRATEGIC PLAN INCLUDES FOUR PRIORITIES:

- 
- Financial Stability and Communication
  - Infrastructure, Safety, and Security
  - Academic Excellence and Student Success
  - Online Learning and Academic Technologies



# INNOVATION

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