Annual Student Learning Report 2020

Student Learning
Navajo Technical University
Navajo Nation

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Covid-19 Disruptions in Spring, 2020

- Covid-19 caused significant disruptions to all aspects of University teaching, learning, and related activities, starting in mid-March, 2020.
- ❖ All courses were shifted to synchronous or asynchronous distance education, or some combination of the two.
- ❖ Faculty taught from home. Campus sites were closed to normal business for the remainder of Spring semester.
- Despite the challenges, many instructors and support staff completed assessment reports, as described below.

Assessment Framework

- Assessment is the process of establishing learning goals, providing learning opportunities, gathering student learning data, and using results to design and implement improvements.
- The process follows Life Principles of Diné Philosophy of Education: Nitsáhákees (critical thinking), Nahat'á (planning), liná (implementation), and Sih Hasin (reflection).
- Every degree and certificate program at the University, including GenEd and Co-Curricular programming, should have an assessment plan that operationalizes Diné Philosophy of Education. The plan's focus is program-level learning (as opposed to class-, course-, or institution-level learning).
- ❖ The plan describes the program's mission, student learning outcomes, measures for gathering student learning data, and relationship of outcomes, courses, and measures. These program elements, along with assessment data and notes pertaining to analysis and program improvements, are archived by the faculty using online tools in the University's Google account.

Student Learning Committee

- ❖ The Student Learning Committee was formed in Fall, 2019 by combining the Assessment Committee (comprised of department chairs) and the General Education Committee (comprised of faculty reps).
- ❖ Following recommendations from the previous year's Annual Assessment Report, members of the new SLC committee − mainly faculty members − were recruited from Crownpoint, Chinle, and Zuni sites. At the end of spring, 2020, members were also recruited from Bond Wilson.
- ❖ The SLC met 9 times in 2019-20. There are 16 members (serving staggered terms) and 3 ex-officio members. The SL Coordinator serves as Chair.

Student Learning Guide

- NTU's Student Learning Guide outlines expectations, roles, and responsibilities for faculty, administrators, students, and academic support staff for General Education, Program Assessment, and Co-Curricular Assessment.
- ❖ The Student Learning Guide was updated and approved by the Student Learning Committee and the Faculty Congress in early fall, 2019.

General Education

- ❖ Faculty finalized the revision of all seventy-four GenEd courses in 2019-20.

 Courses were aligned to new requirements of the New Mexico Higher Education

 Department that emphasize skills and utilize rubrics.
- ❖ In Fall, 2019 and Spring, 2020, different data collectors were piloted by Student Learning Committee members who taught GenEd courses. Despite Covid-19 disruptions, participation in data collection in Spring, 2020 was 100%. SLC members unanimously endorsed the data collection process that semester and will use it moving forward.
- ❖ In 2020-21, GenEd assessment will take place one goal/semester. Data summaries will be compiled by the Offices of Assessment and Institutional Research. Design of improvements will take place by the Student Learning Committee, and affirmed by the Faculty Congress, in subsequent semesters.

ASSESSMENT SCORECARD

General Education

NTU General Edu	ıcation					
Data Collection F	ile: Spring 20	20				
			#	# met		
Course/sec	Instructor	Site	stdnts	target	Status	Improvements
ENGL 2310-1	Bunn	CRP ~	4	1	Partially met 🔻	I believe these students did not meet the target due to burdens caused by COVID-19.
BIOL 1110-6	Devkota	CHN ~	14	9	Partially met 👻	Harness student interest, find better ways to communicate with the students, motivate students to be responsible and autonomous learners.
BIOL 120-6	Devkota	CHN ~	11	7	Partially met 👻	Harness student interest, find better ways to communicate with the students, motivate students to be responsible and autonomous learners.
BIOL 130-6	Devkota	CHN ~	15	9	Partially met 👻	Harness student interest, find better ways to communicate with the students, motivate students to be responsible and autonomous learners.
ENV 102-6	Devkota	CHN ~	6	6	Met *	Met expectation, none at this time.
ENG 150-6	Escudero	CHN ~	5	4	Met *	None at this time.
ENGL 1110-6A	Escudero	CHN ~	20	7	Partially met *	I believe students did not meet the target due to burdens cause by Covid-19.
ENGL 1110-6C	Escudero	CHN ~	13	3	Partially met 🔻	I believe students did not meet the target due to burdens cause by Covid-19.
ENGL 1120-6A	Escudero	CHN ~	11	4	Partially met *	I believe students did not meet the target due to burdens cause by Covid-19.
MATH 1215-6A	Lewis	CHN ~	19	6	Met *	Improve communication methods and motivational methods for distance learning.
MATH 1220-6A	Lewis	CHN →	13	5	Met *	Improve communication methods and motivational methods for distance learning.
MATH 1230-6	Lewis	CHN ~	1	1	Met *	None at this time.
MATH 1350-6	Lewis	CHN ~	6	2	Met 👻	Improve communication methods and motivational methods for distance learning.
ENG 150-1	Moore	CRP ~	8	3	Partially met 👻	Results problematic because of lack of student participation in end of semester survey; plus students disappeared in the shift to online learning.
ENGL 1110-1	Moore	CRP ~	21	6	Partially met 👻	Results problematic because of lack of student participation in end of semester survey; plus students disappeared in the shift to online learning.
ENGL 1110-2	Moore	CRP -	20	2	Partially met 🔻	Results problematic because of lack of student participation in end of semester survey; plus students disappeared in the shift to online learning.
ENGL 1110-5	Moore	CRP -	3	2	Partially met 🔻	Results problematic because of lack of student participation in end of semester survey; plus students disappeared in the shift to online learning.
PSYC 1110-hy	Mullet	HYB ~	19	19	Met *	Better prepare students for the assessment through demonstration and Q/A.
PSYC 1110-on	Mullet	ONL ~	24	24	Met +	Better prepare students for the assessment through demonstration and Q/A.
NAV 102	Nelson	CRP ~	11	8	Partially met 🔻	Covid-19 disruptions primary reason for not meeting target.
NAV 110	Nelson	CHN ~	23	10	Partially met 🔻	Covid-19 disruptions primary reason for not meeting target.
ENGL 1110-6B	Wheeler	CRP ~	20	8	Partially met *	Students affected by emergency transition to online learning.
ENGL 1120-on	Wheeler	ONL ~	20	9	Partially met *	Students affected by emergency transition to online learning.
ENGL 2310-6A	Wheeler	CHN ~	3	3	Met 🔻	Students struggled with transition to online learning but managed to meet requirements.

Certificate & Degree Programs

- New online tools for program design and assessment were established using Google Drive and Apps, replacing Weave Online (and saving \$12,950).
- All assessment data were organized in NTU's Google Drive.
- Training in Google Apps was provided to faculty at Crownpoint and Chinle sites in Fall, 2019.

School of Applied Technology

Joe Chapa, Dean

Program	Instructors responsible	Degree	G drive	Mis	SLO	Msr	Tar	Fnd	Imp
Automotive Technology	Kollas, Piechowski	VC & AAS	٧	٧	٧	٧	٧	٧	٧
CDL	Woody	TC	٧						
Construction Technology	Bebo, Lee, Quashie	VC & AAS	٧	٧	٧	٧	٧		
Culinary Arts	Tatsukawa, Witte	VC & AAS	٧	٧	٧	٧	V		
Electrical Trades	House	VC	٧	٧	٧	٧	٧		
Energy Systems	Lee	AAS	٧	٧	٧	٧	٧	٧	
Professional Baking	Cloud, Jones	VC & AAS	V	٧	٧	٧	٧	٧	
Welding	Storer	VC	٧						

√ indicates program element is in place

School of Arts and Humanities

Dr. Dianna Mullet, chair

Program	Instructors responsible	Degree	G drive	Mis	SLO	Msr	Tar	Fnd	Imp
Creative Writing/ New Media	Bunn, Moore, Louis, Roastingear, Wheeler,	BFA	٧	٧	٧	٧	٧	٧	٧
Counseling	Mullet	AA	٧	٧	٧	٧	٧	٧	٧
Ear Child/Multi Educ	Begay, Lowsayatee, Hunter	AS & BS	٧	٧	٧	٧	٧	٧	٧
General Studies	Bales	AA	٧	٧	٧	٧	٧	٧	٧
Law Advocate	Hibbard, Yazzie	AAS	٧	٧	٧	٧	٧	٧	٧
Law Enforcement	TBD	VC	٧	٧	٧	٧	٧		

√ indicates program element is in place

School of Business

Christine Reidhead, chair

Program	Instructors responsible	Degree	G drive	Mis	SLO	Msr	Tar	Fnd	Imp
Accounting	Sloan, Woody	AAS	٧	٧	٧	٧	٧	٧	٧
Admin Office Assistant	Quink	VC	٧	٧	٧	٧	٧	٧	٧
Bookkeeping	Reidhead	VC	٧	٧	٧	٧	٧	٧	٧
Public Administration	Chischilly	AAS	٧	٧	٧	٧	٧	٧	٧

√ indicates program element is in place

School of Diné Studies

Dr. Henry Fowler, dean

Program	Instructors responsible	Degree	G drive	Mis	SLO	Msr	Tar	Fnd	Imp
Diné Language, Culture, & Leadership	Fowler	MA	٧	٧	٧	٧	٧	٧	٧
Diné Language, Culture, & Leadership	Chicag, Desidero, Fowler, Nelson	ВА	٧	٧	٧	٧	٧	٧	٧

√ indicates program element is in place

School of Engineering, Math, and Technology

Dr. Gholam Ehteshami, chair

Program	Instructors responsible	Degree	G drive	Mis	SLO	Msr	Tar	Fnd	Imp
Adv Manufacturing Tech	Halliday, Shanmugam	BAS	٧	٧	٧	٧	٧	٧	٧
Building Info Modeling	Vellingiri	AAS	٧	٧	٧	٧	٧	٧	٧
Chemical Engineering	Ehteshami	AAS	٧	٧	٧	٧	٧	٧	٧
Computer Science	Stomp	AAS	٧	٧	٧	٧	٧	٧	٧
Electrical Engineering	Arumugam, Romine	BS	٧	٧	٧				
Industrial Engineering	Ramoni, Whiting	BS	٧	٧	٧	٧	٧	٧	٧
Information Technology	Ragavanantham, Thomas, Trebian	AAS & BS	٧	٧	٧	٧	٧	٧	٧
Info Tech/New Media	Louis	BAS	٧	٧	٧	٧	٧	٧	٧
Mathematics	Han, Illafe, Lewis, Paez-Paez, Thompson, Vanguardia	AS	٧	٧	٧	٧	٧	٧	٧

School of Science

Dr. Thiago Soundappan, chair

Program	Instructors responsible	Degree	G drive	Mis	SLO	Msr	Tar	Fnd	lmp
Biology	Anyangewe, Ifere	BS	٧	٧	٧	٧	٧		
Environmental Science & Natural Resources	Chischilly, RoyChowdhury	AAS & BS	٧	٧	٧	٧	٧	٧	٧
Pre-Nursing	Goodluck, Llanque, Pacheco	VC	٧	٧	٧	٧	٧	٧	٧
Veterinary Technology	Daye	AAS	٧	٧	٧	٧	٧		

√ indicates program element is in place

Summary of Program Assessment Scorecards

Schools	# programs	# completed feedback loop	% completed feedback loop
Applied Technology	8	1	12.5%
Arts & Humanities	6	5	83.3%
Business	4	4	100%
Diné Studies	2	2	100%
Engineering, Math, & Technology	10	9	90.0%
Science	4	2	50.0%
TOTAL	34	23	67.6%*

^{*}Percentage was 30.0% in AY19. It was 37.0% in AY18.

Program Assessment Summaries

Accounting (A.A.S.)

Outcomes

- ❖ Demonstrate familiarity with accounting standards and regulations.
- Prepare financial reports.
- Demonstrate technical expertise.
- Demonstrate professionalism.

Findings

- Met target for professionalism.
- ❖ Partially met targets for financial reports and technical expertise.

- ❖ Instruction was greatly impacted byCovid-19 in spring semester. Will teach out incompletes.
- Will develop a semester-long action plan before each future semester begins.
- Must collaborate with program advisor/instructor at Chinle.

Administrative Office Assistant (Certificate)

Outcomes

- Operate office technology.
- Produce office documents.
- Design advanced document formatting.
- Simulate single proprietorship.

Findings

- Met targets for office technology, documents, and single proprietorship.
- Partially met target for document formatting.

- Will improve technology support for outcome #2.
- Will get IT to load transcription materials on computers in Tech 316.
- Must get prepared to teach 100-level courses instructor has not taught in years.
- Must get prepared for possibility of teaching some, or even all, program courses online.

Business Administration (B.B.A.)

Outcomes

- ❖ Demonstrate familiarity with business theories and models relevant to Navajo Nation context.
- Write reports.
- Develop oral presentations.
- Analyze financial data.
- Develop a business plan.
- Lead a team.
- Demonstrate professionalism.

Findings

- Met targets for business theories and models and oral presentations
- ❖ Partially met targets for reports, financial data, business plans, teams, and professionalism.

Improvements

Will strive to improve teaching and grading skills in Moodle LMS.

Chemical Engineering (A.A.S.)

Outcomes

- Solve basic chemical engineering problems.
- Conduct team presentations.
- Demonstrate professionalism based on Diné cultural principles.

Findings

Met targets for all three SLO's.

- Conduct check-sheet analysis to improve transferability.
- Improve course materials.
- Increase homework and frequency of quizzes for quick feedback.
- Modify weights of team-based projects.

Computer Science (A.S.)

Outcomes

- Write sequential programs.
- Design solutions to computer-related problems.
- Develop technical presentations.

Findings

- Did not assess sequential programs.
- Partially met target for computer-related problems.
- Did not meet target for technical presentations.

- Must increase enrollments.
- Must promote reading skills across the program curriculum.
- Will develop a lab course to ensure application of skills.

Counseling (A.A.)

Outcomes

- Analyze frameworks.
- Assess clients.
- Develop intervention plans.
- Role-play crisis situations.
- Demonstrate Diné Philosophy of Education values.

Findings

- Met target for assessing clients.
- Partially met targets for frameworks, intervention plans, role-plays, and DPE values.

Improvements

Will break apart lengthy measures into smaller parts spread across the semester. Will include status checks in complex, long-term projects.

Creative Writing and New Media (B.F.A.)

Outcomes

- Critically interpret Navajo, American Indian, and multicultural works.
- Compose creative works.
- Analyze professional and student works.
- ❖ Use digital media to communicate written, oral, and visual information.
- Produce a professional portfolio in a) creative writing and b) new media.

Findings

- Met target for professional and student work.
- Partially met targets for interpretation, creative works, communicating information, and portfolios.

- ❖ Must increase enrollments. Must work with administration not to cancel low-enrolled courses.
- Must complete portfolio measure and related assignments.
- Will implement Zoom-based speaker series.
- Will strive to improve online teaching and learning in program and across University.

Diné Studies (B.A.)

Outcomes

- Communicate in Navajo.
- Develop and fully support thesis ideas.
- ❖ Publish non-academic texts for NTU audiences.
- ❖ Apply linguistic knowledge to address language learning challenges.
- Implement team-based language learning projects.
- Develop BA thesis with program portfolio.

Findings

- Met targets for non-academic texts and thesis with portfolio.
- Partially met targets for communicating in Navajo, academic writing, and team-based projects. Did not assess applying linguistic knowledge.

Improvements

Must complete design and implementation of portfolio measure.

Diné Studies (M.A.)

Outcomes

- Communicate in Navajo.
- Write reviews.
- Publish non-academic texts for local and tribal audiences.
- Apply linguistic knowledge to address language and culture revitalization challenges.
- Develop MA thesis with program portfolio.

Findings

- Met targets for academic and non-academic texts.
- Did not assess communicate in Navajo, linguistic knowledge, or thesis with portfolio.

- Must analyze each SLO "lane" and on that basis build out each program SLO.
- Must improve admissions process so as to recruit and retain high quality participants.
- Must involve student services more effectively in support of graduate students.
- Must develop an MA student handbook.

Early Childhood & Multicultural Education (B.S.)

Outcomes

- ❖ Demonstrate familiarity with principles of child development.
- Implement lessons.
- Implement instructional units.
- Build family and community collaborations.
- ❖ Integrate DPE into ECME programming.

Findings

❖ Met targets for child development and lessons. Partially met targets for units, collaborations, and DPE.

- Must improve practicums and student teaching; design assessments; produce handbooks; improve placement processes.
- Need to finalize course sequencing across CRT, CHL, and ZUN sites.
- Must finalize measures and produce master syllabi for program courses.
- Need to implement new MATH GenEd course requirements: MATH 1110 and 1115.

Environmental Science & Natural Resources (B.S.)

Outcomes

- ❖ Write research papers with correct scientific documentation and organization.
- Conduct oral presentations using applicable software and presentation media.
- ❖ Write lab reports either field-based or in the classroom using a field notebook.
- Demonstrate professional accountability.

Findings

- ❖ Met targets for research writing, oral presentations, and accountability.
- Partially met target for lab reports.

Improvements

❖ All program courses were designed for face-to-face interactions. Covid-19 threw everything off. Some students did not have access to the internet; some struggled and got help from the NTU tutoring center.

General Studies (A.A.)

Outcomes

- Write a research paper and present orally in class.
- ❖ Apply logic and reasoning to solve a problem.
- Write a paper that identifies ways in which culture and history affect one's present and future, both locally and globally.
- * Research critical issues and write a research paper summarizing findings.
- Craft a presentation related to DPE.

Findings

- ❖ Met target for apply logic and solving a problem.
- Partially met targets for writing research papers.

Improvements

Convene meetings of all instructor who teach program courses to get on same page about outcomes, measures, and syllabi.

Industrial Engineering (B.S.)

Outcomes

- ❖ Identify, formulate, and solve complex engineering problems.
- ❖ Analyze and interpret data to draw conclusions.
- Produce solutions that meet specified needs.

Findings

- Met target for produce solutions.
- Partially met targets for solving complex engineering problems and drawing conclusions.

- Introduce more hands-on problems.
- ❖ Align projects to real-world situations.
- Obtain floating licenses for all engineering software.

Law Advocate (A.A.S.)

Outcomes

- Demonstrate familiarity with Navajo Nation Black Letter law.
- Demonstrate familiarity with Fundamental Law of the Diné People.
- Analyze client needs.
- Write effective legal pleadings.
- Make formal court arguments.
- Demonstrate professionalism.

Findings

- Partially met targets for pleadings, court arguments, and professionalism.
- ❖ Did not meet targets for Black Letter law, Fundamental Law, and client needs.

Improvements

Bring more practicality into the classroom; make subject matter more relevant.

Mathematics (A.S.)

Outcomes

- ❖ Demonstrate knowledge of math foundations and context.
- Perform computations.
- Analyze proofs.
- Solve real-world math-related problems.
- Use technology to address mathematical ideas.

Findings

- Met target for math foundations and context.
- ❖ Partially met targets for computations, real-world problems, and technology.
- Did not assess proofs.

- Must develop and implement rubrics as called for in the assessment plan.
- Must improve access to technology tools and resources.
- Must recruit and train qualified tutors.
- Will participate in summer 2020 in training for online course development and teaching.

New Media (B.S.)

Outcomes

- ❖ Use digital media to communicate written, oral, and visual information.
- Analyze professional and student works.
- Produce a professional portfolio.

Findings

Partially met all three targets.

- ❖ Have scripts available for students in IT 415.
- Provide samples of successful portfolios.
- ❖ Must establish better connections to IT department.

Nursing Assistant (Certificate)

Outcomes

- Demonstrate familiarity with health care concepts.
- Perform nursing skills and techniques.
- Demonstrate professionalism.

Findings

- Met target for professionalism.
- Partially met targets for familiarity and skills.

- Must hire new FT instructor at Chinle.
- Must post Student Handbook online.
- ❖ Need to improve availability of scrubs and supplies through NTU bookstores.
- Will explore opportunities for students' shadowing at partner hospitals.
- Must improve data workflows for gathering and reporting data.
- Need to improve effective communication and accountability across entire institution.

Public Administration (A.A.S.)

Outcomes

- Demonstrate familiarity with social forces that affect public policies.
- Participate in policy analyses.
- Develop oral presentations.
- Solve problems.
- Write effectively.
- Demonstrate professionalism.

Findings

- Met targets for policies, analyses, presentations, writing, and professionalism.
- Did not assess problem-solving.

- Implement more in-class discussions and short presentations related to chapter topics.
- Assist students in need of one-on-one assistance.

Assessment Plans for New Degree Programs

- Mechanical Engineering (B.S.)
- Diné Studies (Ph.D.)

Co-Curricular Program

Program Mission

Through its co-curricular program, NTU will provide value to the Diné community through research, community engagement, and service learning projects, and projects that foster cultural preservation, environmental sustainability, and economic development.

Student Learning Outcomes

- Implement research projects that explore issues in Diné communities.
- ❖ Implement projects that promote community engagement.
- Implement service-learning projects in Diné communities.
- ❖ Demonstrate increased appreciation for Diné cultural preservation through out-of-class projects
- Demonstrate increased appreciation for environmental sustainability in Diné communities through out-ofclass projects.
- ❖ Implement out-of-class projects that promote economic development.

Co-Curricular Assessment

Co-curricular events: 6
Total # of student participants: 45

Survey Item	# surveys	Average*
The activity improved my understand of community needs.	45	4.60
The activity improved my ability to study and report findings.	45	4.47
The experience increased my empathy and respect for others.	45	4.64
As a result of the experience, I have improved my teamwork skills.	45	4.44
The experience increased my appreciation for civic engagement.	44	4.59

^{*1=}strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Co-Curricular Assessment, continued

Sample Survey Comments

What went well?

- Working together and time management of the activity.
- ❖ I learned that we must always check, double-check, and triple-check.
- Going to a job site and having the instructor explain what's happening, seeing other job sites.
- Great amount of team work. Lots of compliments from guests.
- Everything at this event was well organized and put together. A lot of communicating was involved which made the event run smoothly. Working at this helped me gain not only experience but help with my social skills as well as culinary arts skills
- The gambling simulation went well. I got to see how a casino works.
- Our groups worked together to manage the booths.

Co-Curricular Assessment, continued

Sample Survey Comments

What can be improved?

- Better set up to provide more understanding of the project.
- ❖ It would be helpful that we have more opportunities like this that can expand our knowledge about the food industry. The class only skims the top of so many categories. The classes we have can only cover so much before the semester ends.
- ❖ Maybe offer some assistance with students who are struggling with some sort of addiction.
- Information booth should've included activity for children to engage and interact. Little opportunities to engage with children
- More participant involvement instead of just listening to the presenters.
- Name tags for participants.

Opportunities for Improvement

Academic Improvements

- Implement Department Chairs Academy (starting week before Fall Convocation).
- ❖ For programs implemented at different NTU sites, identify a program coordinator who will organize program design, curriculum, assessment, and reporting activities; ensure adequate teaching release time is made available for this additional work.
- ❖ Improve process for gathering and analyzing students' evaluations of instruction.

Opportunities for Improvement, continued

Program Assessment Process Improvements

- Revise NTU's academic calendar so that designated dates provide opportunities for department- and program-level work on academic planning and program improvements:
 - Fall Convocation at Crownpoint Campus: at least one full day.
 - Fall Assessment Day at Crownpoint Campus: one full day.
 Spring Convocation at Chinle Campus: at least one full day.

 - Spring Assessment Day at Chinle Campus: one full day.
- Convene Assessment Week at faculty members' home campuses: at least two full days after graduation; faculty post program-level Annual Student Learning Reports (peer-reviewed by the Student Learning Committee).
- Establish an annual award for Academic Program Excellence (based on Student Learning Committee peer review) to be awarded at subsequent Fall Convocation.

Opportunities for Improvement, continued

GenEd Process Improvements

- Implement data gathering process for appropriate program goals in fall, 2020 and spring, 2021.
- Have faculty design and post online master syllabi for each GenEd course. Ensure the use of these syllabi at each NTU site.

Opportunities for Improvement, continued

Co-Curricular Process Improvements

Have Student Learning Committee actively oversee all aspects of Co-Curricular design, implementation, and assessment.

Appendix 1:

Detailed Student Learning Reports in NTU's Google Drive