

ARIZONA BOARD OF REGENTS
ARIZONA STATE UNIVERSITY
FULTON CENTER – 6th FLOOR
300 EAST UNIVERSITY DRIVE
TEMPE, ARIZONA 85281

Thursday, November 2, 2023

Schedule of Meetings

*The public will have access to the meeting room 30 minutes
prior to the start of the public meeting(s).*

- | | |
|------------------------------|---|
| 9:00 a.m.–9:30 a.m. | Special Board Meeting
(Executive Conference Room)
(9:00 a.m. – 9:05 a.m. – Public Session – Call to Order)
(9:05 a.m. – 9:30 a.m. – Executive Session) |
| 9:45 a.m.–11:45 a.m. | Strategic Initiatives and Planning Committee
(Lincoln Conference Room) |
| 11:45 a.m.–12:45 p.m. | Lunch Break |
| 12:45 p.m.–3:30 p.m. | University Governance and Operations Committee
(Lincoln Conference Room)
(12:45 p.m. – 3:10 p.m. – Public Session)
(Executive Conference Room)
(3:20 p.m. – 3:30 p.m. – Executive Session) |

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**UNIVERSITY GOVERNANCE AND OPERATIONS COMMITTEE
ARIZONA BOARD OF REGENTS**

**ARIZONA STATE UNIVERSITY
FULTON CENTER - 6TH FLOOR
LINCOLN CONFERENCE ROOM (Public Session)
EXECUTIVE CONFERENCE ROOM (Executive Session)
300 E UNIVERSITY DRIVE
TEMPE, ARIZONA 85281**

**Thursday, November 2, 2023
12:45 p.m. – 3:30 p.m.**

The public will have access to the meeting room 30 minutes
prior to the start of the public meeting.

Committee Members

Regent Cecilia Mata, Chair
Regent Lyndel Manson
Regent Doug Goodyear
Regent Fred DuVal (ex-officio)

Regent Jessica Pacheco, Vice Chair
Regent Gregg Brewster
Regent David Zaragoza

12:45 p.m. CALL TO ORDER

**12:48 p.m. ADOPTION OF CONSENT AGENDA ACTION ITEMS AND ACCEPTANCE
ON CONSENT INFORMATION ITEMS**

**All items on the Consent Agenda are listed at the end of this agenda,
underlined and marked with an asterisk (*). These items will be
considered by a single motion with no discussion. All other items will
be considered individually.**

12:50 p.m. ACADEMIC AFFAIRS

12:50 p.m. 1. General Education Quantitative Reasoning Assessment Update

The committee will engage in a discussion with the universities and the
board office regarding the outcomes from the most recent general
education quantitative reasoning assessment.

1:15 p.m. 2. Request for New Academic Organizational Unit for Northern Arizona University

Northern Arizona University asks the committee to review and recommend for board approval its new academic organizational unit.

1:30 p.m. BUSINESS, FINANCE AND CAPITAL

1:30 p.m. 3. Discussion of FY 2024 Financial Status Report – Fall Update

The board office asks the committee to review the fall update of the FY 2024 operating budgets for Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (UArizona).

2:00 p.m. 4. Approval of Tuition and Fee Changes for the 2024-2025 Academic Year in Order to Simplify Student Fees at the University of Arizona

The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for approval a suite of new and adjusted fees for the 2024-2025 academic year at the University of Arizona. These adjustments include establishing new consolidated fee categories and adjusting tuition and/or fee levels outside of the approved maximums in order to allow the university to eliminate all graduate and undergraduate course fees and reduce the number of mandatory program fees.

2:10 p.m. 5. Potential Legislation: Statutory Tuition Waiver Program

The board office asks the committee to review and forward to the board a recommendation on potential legislation related to statutorily mandated tuition waiver programs.

2:25 p.m. 6. Proposed Board Adoption of ABOR Policy 4-406 “Spouses and Dependents of Law Enforcement Officers Tuition Scholarship” (First Reading)

The board office asks the committee to review and forward to the board on first reading the proposed adoption of ABOR Policy 4-406 “Spouses and Dependents of Law Enforcement Officers Tuition Scholarship”

2:30 p.m. 7. Review of Northern Arizona University’s Campus Master Plan

Northern Arizona University (NAU) asks the committee to review and recommend forwarding to the board for approval its Campus Master Plan.

- 3:00 p.m. 8. **Review of Acquisition of 1115 E. Helen Street, Tucson for the University of Arizona**

The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for approval the purchase of the residential real property located at 1115 E. Helen Street, Tucson, Pima County, Arizona, for \$1,875,000.

- 3:10 p.m. **RECESS**

- 3:20 p.m. **EXECUTIVE SESSION**

Pursuant to A.R.S. §38-431.03(A), the committee will convene in executive session to discuss items identified on the executive session agenda.

The committee is expected to adjourn its meeting at approximately 3:30 p.m. at the end of executive session.

CONSENT AGENDA

These items were considered by a single motion with no discussion and approved earlier in the meeting.

9. ***Approval of Minutes**

The board office asks the committee to review and approve the public and executive session minutes from the September 14, 2023 University Governance and Operations Committee Meeting.

ACADEMIC AFFAIRS

10. ***Request for New Academic Organizational Unit for Arizona State University**

Arizona State University (ASU) asks the committee to review and recommend for board approval the new academic organizational unit request effective in the 2024-2025 catalog year.

11. ***Request for New Academic Programs for Arizona State University**

Arizona State University (ASU) asks the committee to review and recommend for board approval the new program requests effective in the 2024-2025 catalog year.

12. ***Request for Approval of the 2023 Annual Report on
Articulation and Transfer for Arizona Postsecondary Education**

The board office asks the committee to review and forward to the board for approval the annual report on articulation and transfer, to be submitted to the Joint Legislative Budget Committee (JLBC) by December 15, 2023, as described in this executive summary.

BUSINESS, FINANCE AND CAPITAL

13. ***Review of Individual Project and Financing for Polytechnic
Utilities Expansion Arizona State University**

Arizona State University (ASU) asks the committee to review and recommend forwarding to the board for individual project and financing approval of its Polytechnic Utilities Expansion. The 3,000 square-foot, \$17.3 million major capital project will be debt-financed with system revenue bonds. The annual debt service will be paid over an approximate thirty-year term and funded by tuition.

14. ***Review of Financing for the 2017 Nanotechnology, LLC
Refunding Bonds Arizona State University**

Arizona State University (ASU) asks the committee to review and recommend forwarding to the board financing approval to refund the outstanding ASU Nanotechnology, LLC Bonds, with ASU System Revenue Refunding Bonds in an amount not to exceed the amount necessary to refund the Nanotechnology, LLC Bonds and to pay associated issuance and transaction costs.

15. ***Review of Individual Project and Financing for the University of
Arizona Health Sciences Building 201 Remodel – 1st Floor
Relocation/Expansion Medical Imaging Administration and
Faculty Offices Renovation Project the University of Arizona**

The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for individual project and financing approval its University of Arizona Health Sciences (UAHS) Building 201 Remodel – 1st Floor Relocation/Expansion Medical Imaging Administration and Faculty Offices Renovation Project. The 16,500 square foot, \$10 million major capital project will be financed with Institutional Funds.

16. ***Review of Individual Project and Financing for Food Project and Safety Lab Renovation for the University of Arizona**

The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for individual project and financing approval its Food Product and Safety Lab Renovation Project. The 16,800 square foot, \$10.9 million major capital project will be financed with New Economy Initiative state funding.

17. ***Review of Long-Term Ground Lease for the Arizona Public Media AM Radio Transmitter Site for the University of Arizona**

The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for approval a 50-year ground lease of a ±5-acre parcel of land located at the University of Arizona Tech Park at Rita Road, Pima County, Arizona.

3:30 p.m.

ADJOURN

PLEASE NOTE: This agenda may be amended at any time prior to 24 hours before the committee meeting. Estimated starting times for the agenda items are indicated; however, discussions may commence, or action may be taken, before or after the suggested times. Any item on the agenda may be considered at any time out of order at the discretion of the committee chair. The committee chair may discuss, consider, or take action regarding any item on the agenda. During the meeting, the committee may convene in executive session pursuant to A.R.S. §38-431.03(A)(3) for legal advice regarding any item on the agenda.

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**EXECUTIVE SESSION AGENDA
ARIZONA STATE UNIVERSITY
FULTON CENTER - 6TH FLOOR
EXECUTIVE CONFERENCE ROOM
300 EAST UNIVERSITY DRIVE
TEMPE, ARIZONA 85281**

Thursday, November 2, 2023

NOTE: This agenda may be amended at any time prior to 24 hours before the Committee meeting. Executive Session is scheduled for 3:20 p.m. on Thursday, November 2, 2023. Executive session may be recessed and continued as necessary.

<u>Statutory Authorization A.R.S. § 38-431.03</u>	<u>Items to be Discussed</u>
(A. 2)	I. Review of minutes of previous executive session
(A. 3, 4 & 7)	II. From Arizona State University
	A. Legal advice, discussion, and direction to designated representatives regarding the ASU West Campus ground lease with Phoenix Children's Hospital.

PLEASE NOTE: This agenda may be amended at any time prior to 24 hours before the committee meeting. Estimated starting times for the agenda items are indicated; however, discussions may commence before or after the suggested times. Any item on the agenda may be considered at any time out of order at the discretion of the committee chair. Pursuant to A.R.S. §38-431.03(A)(3) the committee may convene in executive session at any time during the meeting to receive legal advice regarding any item on the agenda.

Instruction re: Confidentiality

Pursuant to A.R.S. §38-431.03(B) & (C) all are reminded that minutes of and discussions that occur in executive sessions are confidential by law and that violations of that confidentiality may subject the individuals involved to such penalties as are prescribed by law, including fines, costs, attorneys' fees, and removal from office.

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EXECUTIVE SUMMARY

Item Name: **General Education Quantitative Reasoning Assessment Update**

☐ Action Item

Requested Action: The committee will engage in a discussion with the universities and the board office regarding the outcomes from the most recent general education quantitative reasoning assessment.

Background/History of Previous Board Action

In June 2019, the board adopted a new General Education Policy (2-210), clarified by amendment in February 2021, that articulated requirements for the three Arizona public universities' general education programs. The policy mandates each university to assess its general education program's academic outcomes. The board subsequently approved an assessment rubric and plans for scoring the assessments.

A Tri-University General Education Assessment group developed a coordinated approach to assessing the four board-identified areas – written communication, quantitative reasoning, critical thinking, and civic knowledge.

The universities reported on a written communication assessment in November 2022. This past academic year, the universities assessed quantitative reasoning. Additional assessments in critical thinking and civics are being developed and will be presented in subsequent years.

The Board's Tri-University Assessment process positions Arizona as a national leader in General Education assessment.

The four assessments are aimed at measuring student learning (accountability) as well as identifying areas for teaching and learning support (improvement). The group has developed new assessment instruments annually, refining the process each year.

Writing assessment is widely practiced and there were several national resources to draw upon to develop that instrument. For quantitative reasoning there are less resources and fewer examples of practice, making development of the current assessment more challenging. The future critical thinking and civic knowledge assessments will be yet more demanding to develop because available resources are

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EXECUTIVE SUMMARY

scarce. However, the resulting assessments will be among the first of their kind nationally.

Discussion

The committee is expected to discuss the quantitative reasoning assessment outcomes, which will guide adjustments or clarifications to board policy, the university's general education frameworks or the courses themselves.

General Education Quantitative Reasoning Assessment

The three universities assessed undergraduate quantitative reasoning skills during 2022-2023 as part of the new General Education implementation. They developed rubrics based on a respected national model, adapting and extending it for this quantitative reasoning assessment.

The universities each sampled assignments from hundreds of students across a set of courses that satisfy quantitative reasoning requirements specific to each institution and used the samples to evaluate students quantitative reasoning proficiency. Assignments were sampled not only from math classes but also from other quantitative classes such as astronomy, economics, fashion technology, and statistics.

ASU, NAU and UArizona all found that that most students were meeting or exceeding expectations for all key university-determined dimensions of quantitative reasoning (see table below).

	Meets or Exceeds Expectations
ASU	
Evaluate and Analyze (I & II)	99%
Formulate Hypotheses and/or Models	83%
Communicate	91%
NAU	
Contextualize and Evaluate	78%
Application and Analysis	94%
Interpretation	92%
Communication	77%
UArizona	
Contextualize and Evaluate	82%
Analyze, Visualize, and Quantify	72%
Interpret and Apply	84%
Communicate	77%

EXECUTIVE SUMMARY

It is essential to note that the three rubrics are intentionally slightly different in their details, and they are not directly comparable among institutions.

Importantly, the rubrics map to all areas specified in policy while also being tailored to the details of each institution's distinct general education framework.

Note that the ASU and NAU assessments are for their current General Education programs, while the assessment for UArizona is for its newly implemented General Education program initiated in Fall 2022.

The full Tri-University quantitative reasoning assessment [report is available here](#). The full report includes a table detailing how each rubric maps to policy in the overview section. The report also contains the individual assessment summaries prepared by each university, which describe rubrics, sampling methods and the scoring process. In addition to developing the rubrics, training evaluators, sampling and scoring, the universities included faculty experts in the relevant subject areas for data analysis, interpreting results, and drawing implications from the findings.

Statutory/Policy Requirements

ABOR Policy 2-210 "General Education"

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EXECUTIVE SUMMARY

Item Name: Request for New Academic Organizational Unit for Northern Arizona University

☒ Action Item

Requested Action: Northern Arizona University asks the committee to review and recommend for board approval its new academic organizational unit, as described in this executive summary.

Background/History of Previous Board Action

As provided in board policy, new academic organizational unit requests may be submitted throughout the year with the approval of the University Governance and Operations Committee.

Discussion

Northern Arizona University seeks to add the following new standalone academic organizational unit:

- College of Nursing

Statutory/Policy Requirements

ABOR Policy 2-223 “Academic Locations, Degree Programs and Organizational Units”

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EXECUTIVE SUMMARY**Request to Establish a New Academic Organizational Unit**

University: Northern Arizona University

Name of Organizational Unit: College of Nursing
Academic Department: N/A
Geographic Site: Flagstaff Campus – Main North Valley, Tucson, Yuma, and online
Proposed Inception Term: Fall 2024
Brief Description: <p>NAU is elevating the School of Nursing to a College of Nursing. Nursing has expanded program capacity and locations, with the goal of doubling the number of degrees awarded by NAU in this high-demand field by 2030. To bolster our work in nursing at the state and national level, we are creating a free-standing College of Nursing. Nursing at NAU is on a trajectory of growth that has created greater organizational and operational complexity. Elevating the status will increase agility and provide opportunity to strengthen partnerships that support innovation.</p> <p>The College of Nursing will focus its efforts on enhancing existing nursing programs while identifying new degree programs that address the health workforce needs of Arizona. The College of Nursing will assume the same footprint as the existing School of Nursing, with the main campus located at Northern Arizona University's Flagstaff Mountain location and inclusive of multi-geographic locations across Arizona and online programming. The main campus will continue to house the college administrative unit. Statewide locations and Flagstaff will serve, and support students, faculty, staff, and transformational innovation focused on being Arizona's preeminent College of Nursing.</p>
Reason for Establishing the Organizational Unit: Creating the College of Nursing is a strategic decision that aligns with meeting the demands for increasing the nursing workforce through increased access to high-quality nursing degrees and certifications. College status will help to elevate NAU's

EXECUTIVE SUMMARY

presence and visibility in our communities and at state and national levels. Anticipated impacts include enhanced ability to address the nursing shortage through enhanced partnerships, improved alumni relations, expanded development opportunities and ability to recruit and retain qualified nursing faculty, facilitate strategic alignment, and strengthen the sustainability of NAU.

The College structure will support innovation, agility, stronger evaluation processes for nursing faculty, curriculum development, and alignment of resources with specific accreditation requirements. Transferring to the College are seven undergraduate and six graduate programs, as well as three graduate certification programs enrolling about 1200 students.

Resources

Investments in the School of Nursing as it has grown its program portfolio have set the stage for evolution to a College. The fiscal, physical, and human resources of the School of Nursing will support the transition to the College of Nursing with limited additional investment.

Executive leadership and the current central administrative team (10 FTE) of the School will lead and orchestrate operations of the College of Nursing. The College will incorporate all faculty and staff currently appointed to the School (90 FTE). College staff support administrative, clinical and simulation facility operations for nursing programs. School of Nursing resources—a combination of state appropriations for New Economy Initiatives, ongoing budgeted funding for personnel, and unrestricted university revenue—will sustain personnel and support ongoing operations of the College of Nursing. The School of Nursing currently operates with a total of \$8.2M in state and local funds, supplemented by \$2.8M in philanthropic funds (including principal for endowments).

We anticipate adding 2 FTE administrative personnel in the first year (FY 25). Costs of renaming and branding the college will be incorporated into ongoing university branding efforts and upgrades to institutional web architecture. Funding for NAU Health will be used for the modest start up and incremental costs for program expansions. No new funding is requested from the Board or State.

Based on previously modeled growth of programing, there will be continued strategic hiring of faculty and staff to continue to provide adequate support for the growth of NAU's high-quality current nursing and future program offerings.

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EXECUTIVE SUMMARY

Item Name: Discussion of FY 2024 Financial Status Report - Fall Update

☐ Action Item

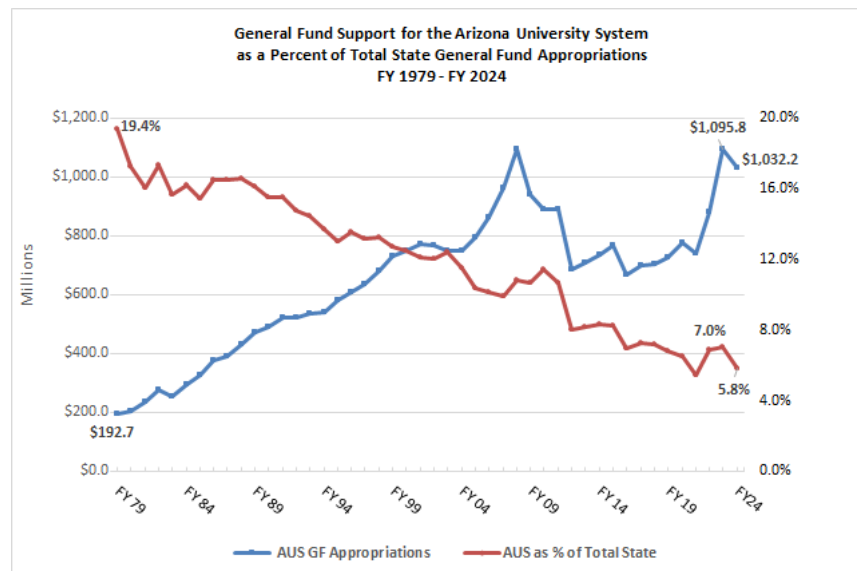
Requested Action: The Board Office asks the committee to review the fall update of the FY 2024 operating budgets for Arizona State University, Northern Arizona University, and the University of Arizona, as described in this Executive Summary.

Background

- Each university presents a fall update to reflect actual expenses-to-date, and updated projections for revenues and expenses for the current fiscal year. The reports include explanations for any significant variances between the initial FY 2024 Operating Budgets approved by the Board in May 2023 and current projections.
- The universities also include a Monthly Days Cash on Hand projection in accordance with the Board's Liquidity Measure Guidelines, established to manage acceptable levels of working capital, or "reserves".
- Also included are results of the FY 2023 operating budget, comparing budget to actuals.

Discussion

- In May 2023 when the board approved the initial FY 2024 budgets, state general fund appropriations were not yet finalized by the legislature. The fall update includes the final general fund appropriations, a system-wide decrease of \$63.5 million from FY 2023. The decrease brings general fund appropriations for the system to \$1,032.2 million.



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- FY 2024 incremental general fund includes \$74.7 million appropriated as one-time funding, \$122.5 million reduction of prior year one-time funding, and a net reduction of \$15.7 million in technical adjustments for the Health Insurance Trust Fund, risk management, Arizona State Retirement System, and Research Infrastructure and Capital Infrastructure financing.

FY 2024 GENERAL FUND APPROPRIATIONS					
	ABOR	ASU	NAU	UA	Total
One-Time	44,000,000	6,900,000	1,000,000	22,800,000	74,700,000
Prior Year One-time Reductions	(36,100,000)	(54,000,000)	(26,000,000)	(6,450,000)	(122,550,000)
Technical Adjustments	669,100	(6,742,800)	(226,000)	(9,375,800)	(15,675,500)
Total	8,569,100	(53,842,800)	(25,226,000)	6,974,200	(63,525,500)
BUDGET DETAIL:					
One-Time Funding	44,000,000	6,900,000	1,000,000	22,800,000	74,700,000
NEI		2,400,000	1,000,000	1,600,000	5,000,000
On Farm Irrigation Efficiency Grants				16,200,000	16,200,000
AZ Teachers Academy	15,000,000				15,000,000
Arizona Promise Program	20,000,000				20,000,000
Law Enforcement Families Scholarship	2,000,000				2,000,000
ABOR - Expand Primary Care Residency Programs	5,000,000				5,000,000
Museum of Democracy Presidential Project	2,000,000				2,000,000
Center for American Institutions		4,000,000			4,000,000
Collegiate Women's Wrestling Program		500,000			500,000
Space Analog Program (\$500K for 3 years)				1,500,000	1,500,000
UAHSC Fall Prevention				1,000,000	1,000,000
UAHSC Medical Student Loans				2,000,000	2,000,000
UAHSC Arizona Reach Program				500,000	500,000
Prior Year One-Time Reductions	(36,100,000)	(54,000,000)	(26,000,000)	(6,450,000)	(122,550,000)
HITF					0
Veterinary Loan Assistance Program	(6,000,000)	0	0	0	(6,000,000)
Camp Verde Meat Processing Facility	(9,700,000)	0	0	0	(9,700,000)
Enclosed Feed Facility	(9,500,000)	0	0	0	(9,500,000)
Food Product & Safety Lab	(10,900,000)	0	0	0	(10,900,000)
FY22 1-time Eastern European Cultural Collab	0	0	0	0	0
AG Workforce Program				(500,000)	(500,000)
One-time Wind Tunnel	0	0	0	(3,000,000)	(3,000,000)
Veterinary Diagnostic Lab				(2,500,000)	(2,500,000)
Endangered Species Funding				(450,000)	(450,000)
One-Time Capital Funding/or operating	0	(54,000,000)	(26,000,000)	0	(80,000,000)
Technical Adjustments	669,100	(6,742,800)	(226,000)	(9,375,800)	(15,675,500)
2003 Research Infrastructure Refinancing		6,100	1,400	2,800	10,300
2017 University Capital Infrastructure Financing		255,700	96,900	226,200	578,800
Statewide Adjustments (HITF, Risk Mgmt, ASRS)	669,100	(7,004,600)	(324,300)	(9,604,800)	(16,264,600)
					0
FY 2024 Incremental Funding	8,569,100	(53,842,800)	(25,226,000)	6,974,200	(63,525,500)
FY23 Appropriations	90,238,000	465,044,700	164,151,500	376,320,700	1,095,754,900
FY24 Appropriations	98,807,100	411,201,900	138,925,500	383,294,900	1,032,229,400

Revenues, Expenses and Change in Net Position

- ASU estimates a slight decrease of \$10.1 million in net position at fiscal year-end compared to the initial FY 2024 budget, which includes an increase of \$56.0 million in operating revenues with an offsetting increase of \$66.1 million in operating expenses.
 - The change is due to a net decrease in state appropriations of \$15.0 million for revised allocations to AZ Promise and the Health Insurance Trust Fund adjustment and increases of \$40.0 million for sponsored grants and contracts, \$21.0 million from the Governor's Emergency Education Relief Funding (GEERF), and \$10.0 million in the Technology and Research Initiative Fund (TRIF). ASU estimates no changes in tuition and fee revenues from the initial budget.

- ASU estimates an offsetting increase of \$64.1 million in expenses primarily related to salary, wages, and benefits across all university units due to competitive wage exercises, increases in employer health benefits premiums and ASRS rates, and increases due to sponsored activity.
- ASU also projects an increase of \$14.0 million in its non-cash expense for depreciation and amortization, partially offset by a corresponding decrease in all other operating expenses of \$12.0 million due to the implementation of GASB 96 – Subscription-based Information Technology Arrangements which were implemented in FY 2023. GASB 96 addresses the accounting for the costs related to software as a service (SAAS).
- NAU estimates no change in fiscal year-end net position compared to the initial FY 2024 budget, which includes an increase of \$19.7 million in operating revenues with an offsetting increase of \$19.6 million in operating expenses.
 - The change in revenues is due primarily to a decrease in state appropriations of \$4.3 million for revised allocations to Arizona Teachers Academy and increases of \$9.5 million for federal sponsored grants and contracts, \$5.4 million from the Governor's Emergency Education Relief Funding (GEERF), and \$10.8 million in the Technology and Research Initiative Fund (TRIF).
 - NAU projects a net decrease of \$11.4 million in tuition and fee revenues from the initial budget, due primarily to a change in the projected enrollment mix. NAU anticipates a reduction of \$6.4 million in gross tuition and fee revenues, and an increase of \$5.0 million in scholarship allowance, to better reflect the Fall 2023 actual enrollment and student financial awards.
 - NAU estimates offsetting expenditures to increase by \$19.6 million. The increase reflects an alignment to actual expenses through the first quarter, primarily in salary and benefits due to the increase in grant activity and general campus operations.
- UArizona estimates a decrease of \$43.1 million in net position at year-end compared to the initial FY 2024 budget. The decrease is due to a combination of an increase of \$126.4 million in operating revenues with an offsetting increase of \$169.5 million in operating expenses.
 - The change in revenues is due primarily to increases of \$91.0 million for sponsored grants and contracts, \$10.0 million from the Governor's Emergency Education Relief Funding (GEERF), \$3.0 million in private gifts, \$5.0 million in the Technology and Research Initiative Fund (TRIF), \$10.0 million in auxiliary revenues due to an increase in fall enrollment, and \$10.0 million in other revenues due to increased earnings.
 - UArizona projects a net decrease of \$4.7 million in tuition and fee revenues from the initial budget. UArizona anticipates an increase of \$3.9 million in gross tuition and fee revenues, with an offsetting increase of \$8.6 million in scholarship allowance, to better reflect the Fall 2023 actual enrollment and student financial awards.
 - UArizona anticipates expenditures, excluding depreciation and amortization, to increase \$141.9 million. This increase is primarily related to the increase in grants and contracts and in auxiliary activities from increased enrollment.

EXECUTIVE SUMMARY

- UArizona also projects increases of \$11.7 million and \$15.9 million for UArizona and UAGC respectively, in its non-cash expenses for depreciation and amortization, due to the implementation of GASB 96.

REVENUES, EXPENSES AND CHANGES IN NET POSITION									
	FY 2023 Actual			FY 2024 Budget			FY 2024 Estimate		
(\$ in Millions)	Total Revenues	Total Expenses	(\$ in Millions)	Total Revenues	Total Expenses	Change in Net Position	Total Revenues	Total Expenses	Change in Net Position
Arizona State University	\$3,802.9	\$3,613.0	\$189.9	\$3,863.1	\$3,784.1	\$79.0	\$3,919.1	\$3,850.2	\$68.9
Northern Arizona University	\$704.6	\$650.0	\$54.6	\$662.9	\$654.4	\$8.5	\$682.5	\$674.0	\$8.5
University of Arizona (Includes UAGC)	\$2,663.1	\$2,583.8	\$79.3	\$2,766.3	\$2,737.4	\$28.9	\$2,892.7	\$2,906.9	(\$14.2)
Total	\$7,170.6	\$6,846.8	\$323.8	\$7,292.3	\$7,175.9	\$116.4	\$7,494.3	\$7,431.1	\$63.2

Student FTE Enrollment

- For Fall 2023, ASU's 21st day enrollment is slightly less than the initial enrollment estimate. Actual student enrollment is 130,052 FTE compared to 130,769 (-717) in the initial budget. Resident student FTE, both undergraduate and graduate is slightly higher than expected by 535 FTE (0.9%), and nonresident less than the initial projection by 1,252 FTE (1.7%). Online FTE was close to projections with actual online FTE at 45,428, compared to the initial budget of 45,021. Year over year, ASU's enrollment increased 2,861 FTE (2.2%). Over the past five years, online students clearly make up the largest share of yearly growth, with resident online increasing 50 percent and nonresident online increasing 55 percent since fall 2019. Online students currently make up 35 percent of ASU's total student enrollment (FTE) with nonresident online making up about 52 percent of total nonresident FTE.

ASU

Fall Enrollment	FY24 Fall 23	FY23 Fall 22	FY22 Fall 21	FY21 Fall 20	FY20 Fall 19
Res UG	46,275	46,278	46,965	47,608	47,057
Res UG - Online	6,273	6,077	5,677	5,219	4,277
NR - UG	24,662	24,469	22,630	20,883	21,665
NR - UG Online	28,215	26,307	23,977	22,972	18,317
Total UG	105,425	103,131	99,249	96,682	91,316
OL as %	33%	31%	30%	29%	25%
Res - Grad	4,361	4,351	4,918	5,019	4,892
Res - Grad Online	2,579	2,215	2,041	1,981	1,641
NR - Grad	9,326	9,600	8,000	6,563	7,396
NR - Grad Online	8,361	7,894	7,555	6,752	5,294
Total Grad	24,627	24,060	22,514	20,315	19,223
OL as %	44%	42%	43%	43%	36%
Total FTE	130,052	127,191	121,763	116,997	110,539

EXECUTIVE SUMMARY

- For Fall 2023, NAU's actual student FTE was slightly less than the initial budget, with actual student FTE at 27,415 compared to budget of 27,600 (-185). Resident student FTE, both undergraduate and graduate is more than projected by 456 FTE, and nonresident less than the initial projection by 641 FTE. Year-over-year, NAU's FTE is up 497 FTE (1.8%). Graduate students make up the largest increase with resident graduate increasing 2.4 percent and nonresident graduate increasing nearly 20.0 percent. Resident undergraduate increased 5.2 percent while nonresident undergraduate decreased 10.3 percent. Online students currently make up 12 percent of NAU's student enrollment (FTE) with resident online making up about 56 percent of total online FTE.

NAU

Fall Enrollment	FY24 Fall 23	FY23 Fall 22	FY22 Fall 21	FY21 Fall 20	FY20 Fall 19
Res UG	15,108	14,216	14,086	14,654	15,156
Res UG - Online	1,128	1,212	1,335	1,415	1,603
NR - UG	5,875	6,551	6,919	7,222	7,963
NR - UG Online	601	667	853	1,032	803
Total UG	22,712	22,646	23,193	24,323	25,525
OL as %	8%	8%	9%	10%	9%
Res - Grad	1,720	1,686	1,701	1,736	1,717
Res - Grad Online	728	705	740	760	685
NR - Grad	1,389	1,217	1,023	918	939
NR - Grad Online	866	664	466	341	309
Total Grad	4,703	4,272	3,930	3,755	3,650
OL as %	34%	32%	31%	29%	27%
Total FTE	27,415	26,918	27,123	28,078	29,175

- For Fall 2023, UArizona's student FTE excluding UAGC is significantly greater (3,334 FTE) than the initial budget projection, with actual Fall 2023 at 52,414 compared to 49,080 estimated in the initial budget. Year-over-year, student FTE enrollment increased by 4,488 FTE or 9.4 percent, largely due to a change in counting methodology for medical students and the international microcampuses. Without the change in methodology, the year-over-year change would be closer to 4.5 percent. UArizona realized the largest growth in nonresident undergraduate students and resident graduate students. Increases in nonresident student FTE occurred both on-campus and online with nonresident undergraduate FTE increasing 2,488 FTE (15%), and nonresident graduate FTE increasing 487 FTE (9.7%). For resident undergraduate students UArizona saw an increase of 379 FTE (1.8%), and a significant increase in resident graduate student enrollment of 1,134 (23.8%). Online students currently make up 11.0 percent of UArizona's student enrollment (FTE) with nonresident online making up about 20.0 percent of total nonresident FTE.
- The Fall 2023 enrollment for UAGC is 23,865 FTE students with 76.0 percent undergraduate and 24.0 percent graduate students. Ninety-three percent of UAGC student FTE are nonresident.

EXECUTIVE SUMMARY**UARIZONA (Excluding UAGC)**

Fall Enrollment	FY24 Fall 23	FY23 Fall 22	FY22 Fall 21	FY21 Fall 20	FY20 Fall 19
Res UG	21,333	20,821	21,483	22,512	22,418
Res UG - Online	650	783	867	738	531
NR - UG	15,402	13,683	12,601	11,073	11,828
NR - UG Online	3,634	2,865	2,035	1,763	843
Total UG	41,018	38,152	36,986	36,086	35,620
OL as %	10%	10%	8%	7%	4%
Res - Grad	5,427	4,300	4,264	4,229	4,034
Res - Grad Online	475	469	538	501	492
NR - Grad	4,245	3,771	3,722	3,479	3,577
NR - Grad Online	1,248	1,235	1,319	1,222	991
Total Grad	11,395	9,775	9,843	9,431	9,094
OL as %	15%	17%	19%	18%	16%
Total FTE	52,414	47,926	46,829	45,517	44,714

International Student Enrollment

- For Fall 2023 international enrollment increased 7 percent at ASU, 18 percent for NAU, and 5 percent for UArizona. ASU's international student FTE has completely rebounded, and enrollment is higher than Fall 2019, before the pandemic. UArizona is still down about 4 percent from Fall 2019 and NAU down 13 percent from pre-pandemic levels. There are many countries represented but the greatest numbers are from China, India, and the middle east.

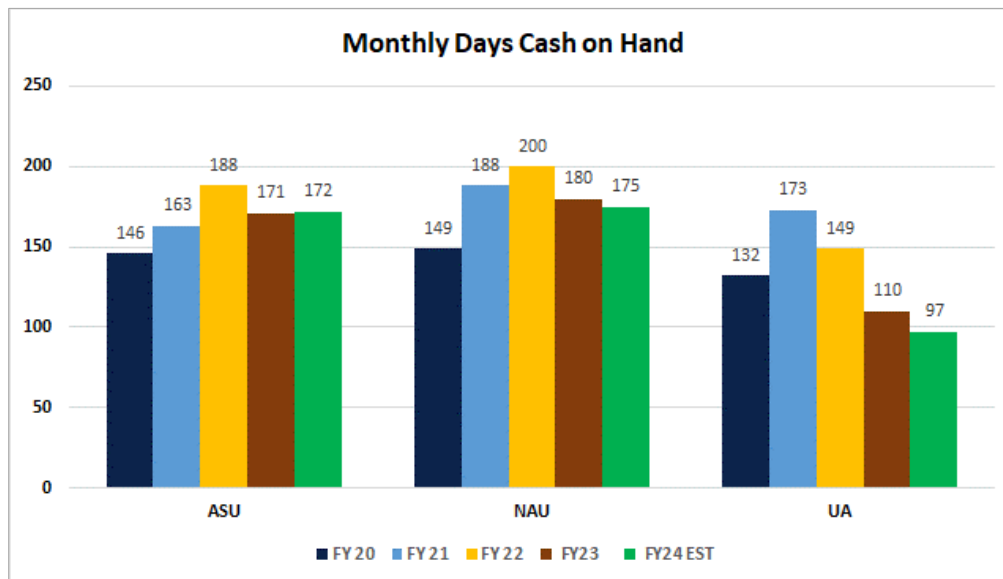
	Fall 19	Fall 20	Fall 21	Fall 22	Fall 23	Δ Fall 23 & Fall 19		Δ Fall 23 & Fall 22	
ASU	10,078	8,505	9,748	12,025	12,919	2842	28%	894	7%
NAU	1,280	661	626	944	1,117	-163	-13%	173	18%
UA	3,888	3,090	3,174	3,532	3,714	-174	-4%	182	5%
Total	15,246	12,256	13,548	16,501	17,750	1255	8%	1249	8%

Monthly Days Cash on Hand

- The Board's Guidelines for Liquidity Measures provides guidance to the universities regarding acceptable levels of working capital. The recommended measure is for the universities to maintain the Monthly Days Cash on Hand (MDCOH) ratio within a range of plus or minus 25% of the median among Moody's rated public colleges and universities, currently calculated at between 140 days and 234 days.

EXECUTIVE SUMMARY

- Cash reserves are one factor that credit rating agencies use to assess credit risk and evaluate credit profiles for higher education institutions.
- ASU and NAU universities are within the board's calculated range and slightly below public colleges and universities median of 187 days.
 - ASU's FY 2023 monthly days cash on hand was 171 days and are projecting to increase to 172 days by the end of FY 2024.
 - NAU's FY 2023 monthly days cash on hand was 180 days with a projection of 175 days at the end of FY 2024.
 - UArizona's FY 2023 monthly days cash on hand is significantly below the board's target range with 110 days in FY 2023, and projecting to decrease further to 97 days at the end of FY 2024. The major causes associated with the decrease are:
 - The acquisition of UAGC added \$265.5M in operating costs, thus increasing the denominator in the days cash formula.
 - Inflationary cost increases on travel, supplies, and services as well as market pressures on salaries are increasing faster than underlying revenues. Several units are challenged to respond to these cost demands with timely reductions in programs or services.
 - UArizona's plan to address the declining cash on hand includes:
 - The current budget model is designed to support investment in high revenue growth and high margin potential areas, such as University of Arizona Global Campus, Arizona Institute for Data Science, the iSchool, Business Analytics, and Arizona Health Sciences College. In addition, the budget model will allow the institution to centrally capture and retain more balances and not rely on local reserves within the units to support the overall days cash balances of the organization.
 - Ongoing and continuous campaigns with leadership throughout campus focused on identifying and reducing costs, programs, and services.
 - Several units have engaged in hiring freezes with an intent to reduce their overall workforce through attrition. At least another dozen units are currently evaluating whether to implement a hiring freeze and/or reduction in force based on their existing runway of available resources.
 - Consolidation of physical space for administrative infrastructure, including the sale of property in downtown Tucson currently housing several administrative units.

**Statutory/Policy Requirements**

ABOR Policy 3-407 – Budget Updates



FY 2024 ANNUAL BUDGET- FALL UPDATE

(\$ millions)

REVENUES

Appropriated General Funds \$386.9
 Appropriated General Funds - Research Infrastructure \$13.5
 Appropriated General Funds - Capital Infrastructure \$13.0
 Appropriated General Funds - Arizona Financial Aid Trust (AFAT) \$6.0
 State Appropriation Transfer - Arizona Teachers Academy \$15.0
 State Appropriation Transfer - AZ Promise \$31.5

Tuition and Fees

less Scholarship Allowance (\$641.1)
 Net Tuition and Fees \$2,008.9

Grants & Contracts -- Research \$565.0
 Financial Aid Grants (Primarily Federal Pell Grants) \$220.0
 COVID-19 Relief Funding \$50.0
 Private Gifts \$100.3
 Technology & Research Initiative Fund (TRIF) \$33.9
 Auxiliary Revenues, Net \$253.2
 Other Revenues \$165.9

Total Revenues

EXPENSES

Salaries and Wages \$1,524.0
 Benefits \$479.6
 All Other Operating \$1,130.0
 Scholarships & fellowships, (Net of Scholarship Allowance) \$310.0
 Interest on Indebtedness \$87.5
 Depreciation \$213.0
 Pension Liability/OPEB (GASB 68 & GASB 45) \$40.0

Total Expenses

Net Increase/(Decrease)

FY 2024 OPERATING BUDGET						FY 2023	
FY24 OPERATING BUDGET	ACTUAL TO DATE 9/30/23	CURRENT PROJECTED @ 06/30/24	VARIANCE BETWEEN FY 2024 BGT & FY 2024 PROJECTED			FY 2023 ACTUAL (unaudited)	VARIANCE BETWEEN FY 2023 ACTUAL & CURRENT PROJECTED
			\$	%		\$	\$
Appropriated General Funds	\$386.9	\$98.9	\$378.7	(\$8.2)	-2.1%	\$432.8	(\$54.1)
Appropriated General Funds - Research Infrastructure	\$13.5	\$3.4	\$13.5	\$0.0	0.0%	\$13.5	\$0.0
Appropriated General Funds - Capital Infrastructure	\$13.0	\$3.3	\$13.0	\$0.0	0.0%	\$12.8	\$0.2
Appropriated General Funds - Arizona Financial Aid Trust (AFAT)	\$6.0	\$2.9	\$6.0	\$0.0	0.0%	\$6.0	\$0.0
State Appropriation Transfer - Arizona Teachers Academy	\$15.0	\$2.7	\$16.5	\$1.5	n/a	\$9.7	\$6.8
State Appropriation Transfer - AZ Promise	\$31.5	\$0.0	\$23.2	(\$8.3)	n/a	\$10.5	\$12.7
Tuition and Fees	\$2,650.0	\$1,274.0	\$2,650.0	\$0.0	0.0%	\$2,492.8	\$157.2
less Scholarship Allowance	(\$641.1)	(\$320.6)	(\$641.1)	\$0.0	0.0%	(\$603.4)	(\$37.7)
Net Tuition and Fees	\$2,008.9	\$953.4	\$2,008.9	\$0.0	\$0.0	\$1,889.4	\$119.5
Grants & Contracts -- Research	\$565.0	\$152.3	\$605.0	\$40.0	7.1%	\$552.1	\$52.9
Financial Aid Grants (Primarily Federal Pell Grants)	\$220.0	\$100.4	\$220.0	\$0.0	0.0%	\$216.7	\$3.3
COVID-19 Relief Funding	\$50.0	\$16.0	\$71.0	\$21.0	n/a	\$51.4	\$19.6
Private Gifts	\$100.3	\$27.7	\$100.3	\$0.0	0.0%	\$102.0	(\$1.7)
Technology & Research Initiative Fund (TRIF)	\$33.9	\$6.0	\$43.9	\$10.0	29.5%	\$35.7	\$8.2
Auxiliary Revenues, Net	\$253.2	\$98.9	\$253.2	\$0.0	0.0%	\$253.9	(\$0.7)
Other Revenues	\$165.9	\$70.9	\$165.9	\$0.0	0.0%	\$216.4	(\$50.5)
Total Revenues	\$3,863.1	\$1,536.8	\$3,919.1	\$56.0	1.4%	\$3,802.9	\$116.2
Salaries and Wages	\$1,524.0	\$308.2	\$1,576.0	\$52.0	3.4%	\$1,420.0	\$156.0
Benefits	\$479.6	\$95.2	\$491.7	\$12.1	2.5%	\$460.5	\$31.2
All Other Operating	\$1,130.0	\$339.0	\$1,118.0	(\$12.0)	-1.1%	\$1,118.8	(\$0.8)
Scholarships & fellowships, (Net of Scholarship Allowance)	\$310.0	\$102.8	\$310.0	\$0.0	0.0%	\$290.8	\$19.2
Interest on Indebtedness	\$87.5	\$43.8	\$87.5	\$0.0	0.0%	\$84.1	\$3.4
Depreciation	\$213.0	\$57.0	\$227.0	\$14.0	6.6%	\$221.0	\$6.0
Pension Liability/OPEB (GASB 68 & GASB 45)	\$40.0	\$10.0	\$40.0	\$0.0	0.0%	\$17.8	\$22.2
Total Expenses	\$3,784.1	\$956.0	\$3,850.2	\$66.1	1.7%	\$3,613.0	\$237.2
Net Increase/(Decrease)	\$79.0	\$580.8	\$68.9	(\$10.1)	(\$0.0)	\$189.9	(\$121.0)



FY 2024 ANNUAL BUDGET- FALL UPDATE

ASU Public Enterprise

(\$ millions)

REVENUES

Appropriated General Funds	\$386.9	\$98.9	\$378.7	(\$8.2)	-2.1%	\$432.8	(\$54.1)
Appropriated General Funds - Research Infrastructure	\$13.5	\$3.4	\$13.5	\$0.0	0.0%	\$13.5	\$0.0
Appropriated General Funds - Capital Infrastructure	\$13.0	\$3.3	\$13.0	\$0.0	0.0%	\$12.8	\$0.2
Appropriated General Funds - Arizona Financial Aid Trust (AFAT)	\$6.0	\$2.9	\$6.0	\$0.0	0.0%	\$6.0	\$0.0
Appropriated General Funds - ASU Preparatory Academy ¹	\$62.0	\$31.0	\$62.0	\$0.0	n/a	\$62.5	(\$0.5)
State Appropriation Transfer - Arizona Teachers Academy	\$15.0	\$2.7	\$16.5	\$1.5	n/a	\$9.7	\$6.8
State Appropriation Transfer - AZ Promise	\$31.5	\$0.0	\$23.2	(\$8.3)	n/a	\$10.5	\$12.7

Tuition and Fees

Tuition and Fees	\$2,650.0	\$1,274.0	\$2,650.0	\$0.0	0.0%	\$2,492.8	\$157.2
less Scholarship Allowance	(\$641.1)	(\$320.6)	(\$641.1)	\$0.0	0.0%	(\$603.4)	(\$37.7)
Net Tuition and Fees	\$2,008.9	\$953.4	\$2,008.9	\$0.0	\$0.0	\$1,889.4	\$119.5

Grants & Contracts -- Research	\$570.0	\$152.3	\$610.0	\$40.0	7.0%	\$562.7	\$47.3
Financial Aid Grants (Primarily Federal Pell Grants)	\$220.0	\$100.4	\$220.0	\$0.0	0.0%	\$216.7	\$3.3
COVID-19 Relief Funding	\$50.0	\$16.0	\$71.0	\$21.0	n/a	\$51.4	\$19.6
Private Gifts	\$396.1	\$175.6	\$396.1	\$0.0	0.0%	\$368.6	\$27.5
Technology & Research Initiative Fund (TRIF)	\$33.9	\$6.0	\$43.9	\$10.0	29.5%	\$35.7	\$8.2
Auxiliary Revenues, Net	\$253.2	\$98.9	\$253.2	\$0.0	0.0%	\$253.9	(\$0.7)
Other Revenues ²	\$374.3	\$175.1	\$374.3	\$0.0	0.0%	\$433.6	(\$59.3)

Total Revenues

Total Revenues	\$4,434.3	\$1,819.9	\$4,490.3	\$56.0	1.3%	\$4,359.8	\$130.5
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EXPENSES

Salaries and Wages	\$1,599.3	\$345.9	\$1,651.3	\$52.0	3.3%	\$1,495.4	\$155.9
Benefits	\$511.9	\$111.3	\$524.0	\$12.1	2.4%	\$492.6	\$31.4
All Other Operating	\$1,383.1	\$465.6	\$1,371.1	(\$12.0)	-0.9%	\$1,396.7	(\$25.6)
Scholarships & fellowships, (Net of Scholarship Allowance)	\$310.0	\$102.8	\$310.0	\$0.0	0.0%	\$290.8	\$19.2
Interest on Indebtedness	\$94.5	\$47.3	\$94.5	\$0.0	0.0%	\$92.0	\$2.5
Depreciation	\$224.5	\$62.8	\$238.5	\$14.0	6.2%	\$233.0	\$5.5
Pension Liability/OPEB (GASB 68 & GASB 45)	\$40.0	\$10.0	\$40.0	\$0.0	0.0%	\$17.8	\$22.2

Total Expenses

Total Expenses	\$4,163.3	\$1,145.7	\$4,229.4	\$66.1	1.6%	\$4,018.3	\$211.1
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Net Increase/(Decrease)

Net Increase/(Decrease)	\$271.0	\$674.2	\$260.9	(\$10.1)	(\$0.0)	\$341.5	(\$80.6)
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¹ASU Preparatory Academy state aid is recorded as Appropriated General Funds revenue to align with the University's Enterprise-view for total public investment.

²Component unit investment returns, which include market-derived unrealized gains and losses on investments measured at June 30, are the primary cause of the significant fluctuation between years.



Financial Status Update — FY 2024 as of September 30, 2023

(Dollars in Millions)

CHANGE IN NET POSITION		
	FY 2024 Budgeted	FY 2024 Projected
		Change in Net Position
ASU	\$79.0	\$68.9 (\$10.1)

MONTHLY DAYS CASH ON HAND				
	FY 2022	FY 2023 (Unaudited)	FY 2024 (Budgeted)	FY 2024 (Projected)
ASU	188	171	177	172
	75%	Median	125%	
Moody's*	140	187	234	
*US Public University Range (FY 2022)				

MAJOR COMPONENTS OF CHANGE IN NET POSITION				
Revenues				
	State Appropriations	\$	(15.0)	Health Insurance Trust Fund, Arizona Teachers Academy and AZ Promise allocations
	Grants and Contracts		40.0	Adjusted to align with current year actuals; increase in federal sponsor awards
	Coronavirus Related Federal Grant Funding		21.0	GEERF funding from AZ Governor’s Office
	Technology and Research Initiative Fund		10.0	ASU Health investment
Total Change in Revenues			56.0	
Expenses				
	Salaries and Wages	\$	52.0	Adjusted to align with current year actuals.
	Benefits		12.1	Adjusted to align with current year increase in salaries and wages.
	All Other Operating		(12.0)	Impact of new accounting standard regarding subscription arrangements
	Depreciation and Amortization		14.0	Impact of new accounting standard regarding subscription arrangements
Total Change in Expenses			66.1	
Net Variance		\$	(10.1)	

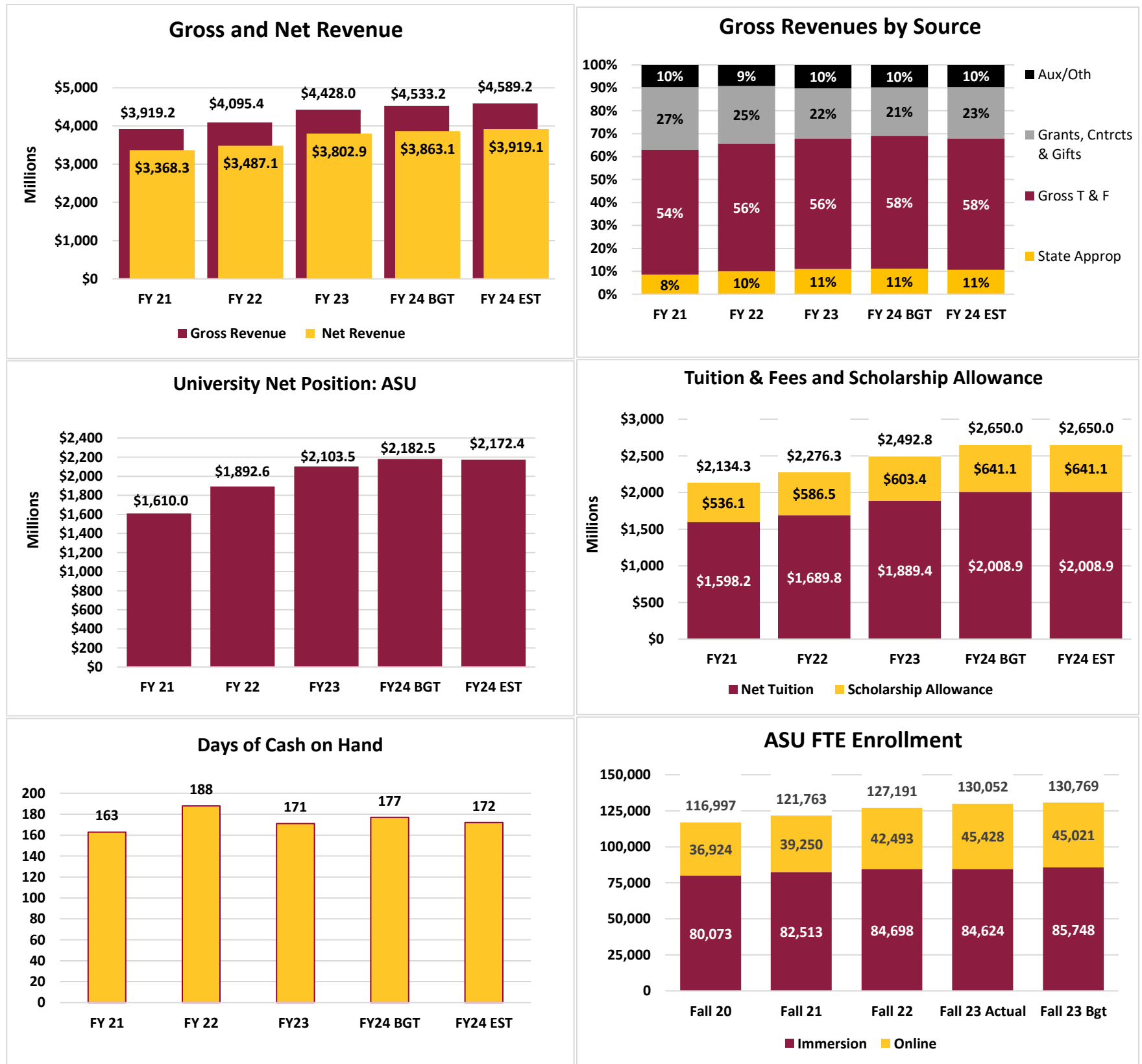
ARIZONA STATE UNIVERSITY - TUITION AND FEES REVENUE

(\$000)

	FY22	FY23	FY24 BGT	FY24 EST	Δ FY23/FY24 EST		Δ FY24 BGT/FY24 EST	
TUITION	1,190,703	1,297,940	1,392,207	1,392,207	94,267	7%	-	0%
NR UG	526,197	592,360	645,641	645,641	53,282	9%	-	0%
RES UG	437,313	439,458	450,004	450,004	10,546	2%	-	0%
NR Grad	177,863	220,578	250,284	250,284	29,706	13%	-	0%
RES Grad	49,330	45,544	46,277	46,277	734	2%	-	0%
Online	527,013	581,155	619,902	619,902	38,747	7%	-	0%
NR UG	353,851	397,915	409,918	409,918	12,003	3%	-	0%
RES UG	65,690	70,403	67,806	67,806	(2,598)	-4%	-	0%
NR Grad	85,019	88,565	107,869	107,869	19,304	22%	-	0%
RES Grad	22,454	24,272	34,310	34,310	10,038	41%	-	0%
Prog Fees/Diff	90,930	92,672	123,170	123,170	30,498	33%	-	0%
UG	76,096	14,875	14,406	14,406	(469)	-3%	-	0%
Grad	14,834	77,797	108,764	108,764	30,967	40%	-	0%
College Fee	127,741	138,853	161,191	161,191	22,338	16%	-	0%
UG	114,821	125,806	149,985	149,985	24,179	19%	-	0%
Grad	12,920	13,046	11,206	11,206	(1,841)	-14%	-	0%
Course Fees	674	153	346	346	193	126%	-	0%
UG	285	154	346	346	192	124%	-	0%
Grad	390	-1	0	0	1	-100%	-	-
Summer & Winter Sessions	249,787	267,389	232,959	232,959	(34,430)	-13%	-	0%
Mandatory Fees	42,084	44,920	51,153	51,153	6,233	14%	-	0%
UG	31,702	31,975	36,337	36,337	4,361	14%	-	0%
Grad	10,383	12,944	14,816	14,816	1,872	14%	-	0%
Other Misc.	47,381	64,063	69,056	69,056	4,994	8%	-	0%
Total Tuition & Fees	2,276,313	2,487,145	2,649,985	2,649,985	162,839	7%	-	0%



FY 2024 ANNUAL BUDGET - FALL UPDATE



ARIZONA STATE UNIVERSITY
FY23 INITIAL BUDGET vs. FY23 ACTUAL

	FY23 BUDGET	FY23 ACTUAL (unaudited)	VARIANCE	
			\$	%
Revenues				
State General Fund Appropriation	\$367.0	\$432.8	65.8	17.9%
State Appropriation - Research Infrastructure	\$13.5	\$13.5	0.0	0.0%
State Appropriation - Capital Infrastructure	\$12.8	\$12.8	0.0	0.0%
State Appropriations - AFAT	\$6.0	\$6.0	0.0	0.0%
Total General Fund Appropriation	\$399.3	\$465.1	65.8	16.5%
State Appropriation Transfer - Arizona Teachers Academy	\$7.5	\$9.7	2.2	29.3%
State Appropriation Transfer - Arizona Promise Program	\$9.9	\$10.5	0.6	6.1%
Tuition and Fees	\$2,448.8	\$2,492.8	44.0	1.8%
<i>less Scholarship Allowance</i>	<i>(\$592.4)</i>	<i>(\$603.4)</i>	<i>(11.0)</i>	<i>1.9%</i>
Net Tuition and Fees	\$1,856.4	\$1,889.4	33.0	1.8%
Grants & Contracts -- Research	\$507.0	\$552.1	45.1	8.9%
Financial Aid Grants (Primarily Federal Pell Grants)	\$203.6	\$216.7	13.1	6.4%
COVID-19 Relief Funding	\$0.0	\$51.4	51.4	-
Private Gifts	\$96.0	\$102.0	6.0	6.3%
Technology & Research Initiative Fund (TRIF)	\$33.9	\$35.7	1.8	5.3%
Auxiliary Revenues, Net	\$240.4	\$253.9	13.5	5.6%
Other Revenues	\$125.1	\$216.4	91.3	73.0%
Total Other Revenues	\$1,206.0	\$1,428.2	222.2	18.4%
Total Revenues	\$3,479.1	\$3,802.9	\$323.8	9.3%
Salaries and Wages	\$1,342.4	\$1,420.0	77.6	5.8%
Benefits	\$421.7	\$460.5	38.8	9.2%
All Other Operating	\$1,048.0	\$1,118.8	70.8	6.8%
Scholarships & fellowships, Net of Scholarship Allowance	\$306.8	\$290.8	<i>(16.0)</i>	<i>(5.2%)</i>
Interest on Indebtedness	\$80.3	\$84.1	3.8	4.7%
Depreciation	\$200.6	\$221.0	20.4	10.2%
Pension Liability/OPEB (GASB 68 & GASB 45)	\$40.0	\$17.8	<i>(22.2)</i>	<i>(55.5%)</i>
Total Expenses	\$3,439.8	\$3,613.0	173.2	5.0%
Net Increase	\$39.3	\$189.9	150.6	

FY 2024 ANNUAL BUDGET- FALL UPDATE

(\$ millions)

REVENUES

State General Fund Appropriation
State Appropriation - Research Infrastructure
State Appropriation - Capital Infrastructure
State Appropriation - AFAT
State General Fund Appropriation

State Appropriation Transfer - Arizona Teachers Academy
State Appropriation Transfer - AZ Promise

Tuition and Fees
less Scholarship Allowance
Net Tuition and Fees

Grants & Contracts -- Research
Financial Aid Grants (Primarily Federal Pell Grants)
Institutional Education Emergency Relief (HEERF & GEER)
Private Gifts
Technology & Research Initiative Fund (TRIF)
Auxiliary Revenues, Net
Other Revenues

Total Revenues

EXPENSES

Salaries and Wages
Benefits
All Other Operating
Scholarships & fellowships, (Net of Scholarship Allowance)
Interest on Indebtedness
Depreciation
OPEB (GASB 75)
Total Expenses

Net Increase

FY 2024 OPERATING BUDGET						FY 2023	
FY24 OPERATING BUDGET	ACTUAL TO DATE 8/31/23	CURRENT PROJECTED @ 06/30/23	VARIANCE BETWEEN FY 2024 BGT & FY 2024 PROJECTED			FY 2023 ACTUAL (unaudited)	VARIANCE BETWEEN FY 2023 ACTUAL & CURRENT PROJECTED
			\$	%		\$	\$
\$126.70	\$21.5	\$127.40	\$0.7	0.6%		\$151.0	(\$23.6)
\$5.30	\$0.9	\$5.30	\$0.0	0.0%		\$5.3	\$0.0
\$4.90		\$4.90	\$0.0	0.0%		\$4.8	\$0.2
\$1.30		\$1.30	\$0.0	0.0%		\$1.3	(\$0.0)
\$138.20	\$22.4	\$138.90				\$162.4	
\$12.80		\$8.50	(\$4.3)	-33.6%		\$4.1	\$4.4
\$6.70		\$6.70	\$0.0	0.0%		\$4.2	\$2.5
\$404.4	\$184.8	\$398.00	(\$6.4)	-1.6%		\$374.8	\$23.2
(\$189.0)	(\$96.3)	(\$194.00)	(\$5.0)	2.6%		(\$179.4)	(\$14.6)
\$215.4	\$88.5	\$204.00	(\$11.4)	-5.3%		\$195.5	\$8.6
\$78.51	\$16.2	\$88.00	\$9.5	12.1%		\$94.6	(\$6.6)
\$43.50	\$18.7	\$43.50	\$0.0	0.0%		\$39.2	\$4.3
\$5.90	\$0.6	\$11.30	\$5.4	n/a		\$11.9	(\$0.6)
\$25.00	\$5.1	\$25.00	\$0.0	0.0%		\$50.6	(\$25.6)
\$19.84	\$1.4	\$30.60	\$10.8	54.2%		\$19.6	\$11.0
\$79.00	\$17.6	\$88.00	\$9.0	11.4%		\$77.9	\$10.1
\$38.00	\$13.9	\$38.00	\$0.0	0.0%		\$44.7	(\$6.7)
\$662.9	\$184.4	\$682.50	\$19.7	3.0%		\$704.6	(\$22.1)
\$297.0	\$41.8	\$310.00	\$13.0	4.4%		\$294.0	\$16.0
\$94.5	\$17.0	\$96.50	\$2.0	2.1%		\$93.4	\$3.1
\$148.0	\$26.7	\$156.00	\$8.0	5.4%		\$164.2	(\$8.2)
\$35.0	\$17.2	\$32.00	(\$3.0)	-8.6%		\$30.6	\$1.4
\$25.4	\$3.5	\$25.40	\$0.0	0.0%		\$24.0	\$1.4
\$54.5	\$7.4	\$54.10	(\$0.4)	-0.7%		\$53.6	\$0.5
\$0.0	\$0.0	\$0.00	\$0.0	0.0%		(\$9.8)	\$9.8
\$654.4	\$113.6	\$674.00	\$19.6	3.0%		\$650.0	\$24.0
\$8.5	\$70.8	\$8.5	\$0.1	0.6%		\$54.6	(\$46.1)



Quarterly Status Update - FY 2024
as of September 30, 2023

(Dollars in Millions)

CHANGE IN NET POSITION			
	FY 2024 Budgeted	FY 2024 Projected	Change in Net Position
NAU	\$8.5	\$8.5	\$0

MONTHLY DAYS CASH ON HAND				
	FY 2022	FY 2023	FY 2024 (Budgeted)	FY 2024 (Projected)
NAU	200	180	175	175
	75%	Median	125%	
Moody's*	140	187	234	
*US Public University Range (FY 2022)				

CHANGE IN NET POSITION: BUDGETED VS PROJECTED			
Revenues			
State General Fund Appropriation	0.7	Adjustment for final appropriation approved in June 2023	
State ATA Appropriation	(4.3)	Adjustment for ABOR allocation communicated July 2023.	
Tuition and Fees (net)	(11.4)	Adjusted to better align with FY24 actual enrollment and enrollment mix for fall census	
Grants and Contracts	9.5	Increased grant activity.	
Institutional Education Emergency Relief (HEERF & GEER)	5.4	Increase due to additional Coronavirus Relief Funds received in October 2023 for expenses incurred from March 21, 2021 through September 30, 2023	
Technology & Research Initiative Fund	10.8	Adjustment for additional awards for NAU Health.	
Auxiliary Revenues (net)	9.0	Realignment of budget based on YTD activity in Housing, Dining and other on campus auxiliary activity	
Total Change in Revenues		\$19.7	
Expenses			
Salaries & Wages	13.0	Realignment with increased grant activity.	
Benefits	2.0	Results of LMS Implementation Capitalization offset by increased grant activity and BCBS increase.	
All Other Operating Expense	8.0	Adjusted to YTD operational activity to support campus operations and final State Appropriation	
Scholarships & Fellowships (net)	(3.0)	Realignment based on YTD results	
Depreciation	(0.4)	Aligning with prior year actuals.	
Total Change in Expenses		\$19.7	
Net Variance		\$0.0	

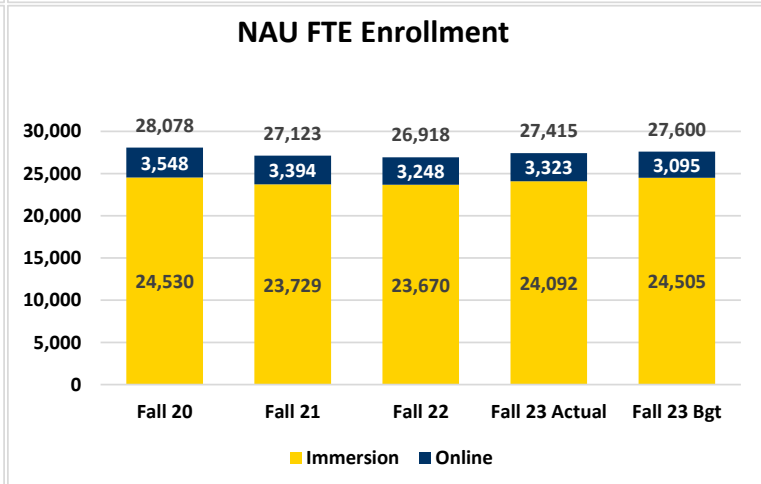
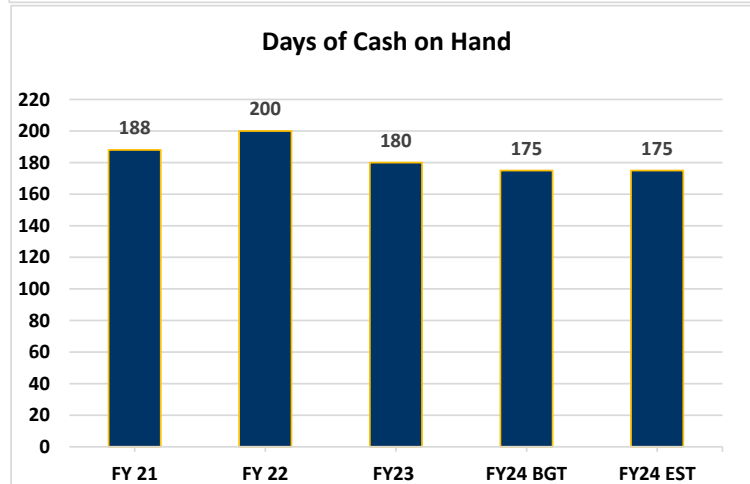
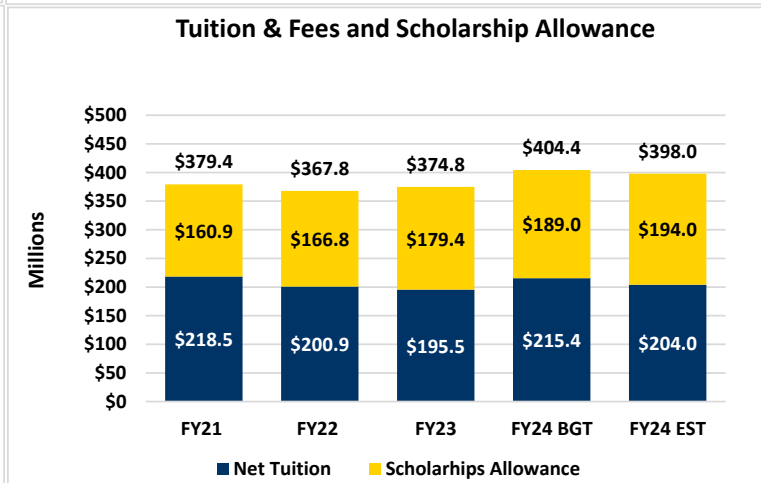
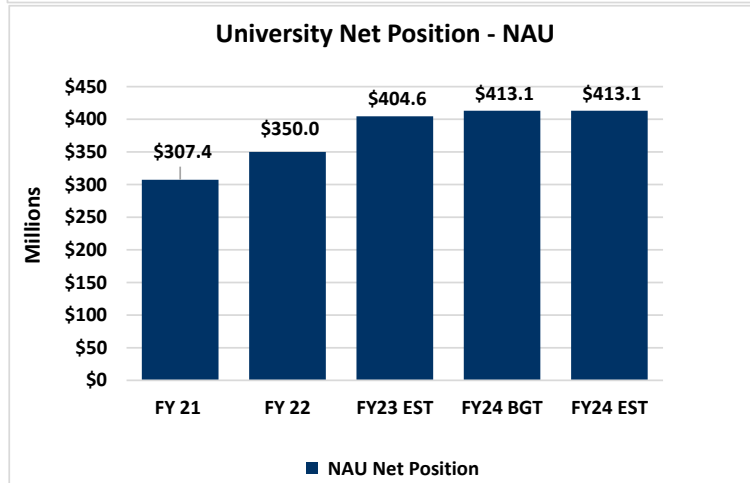
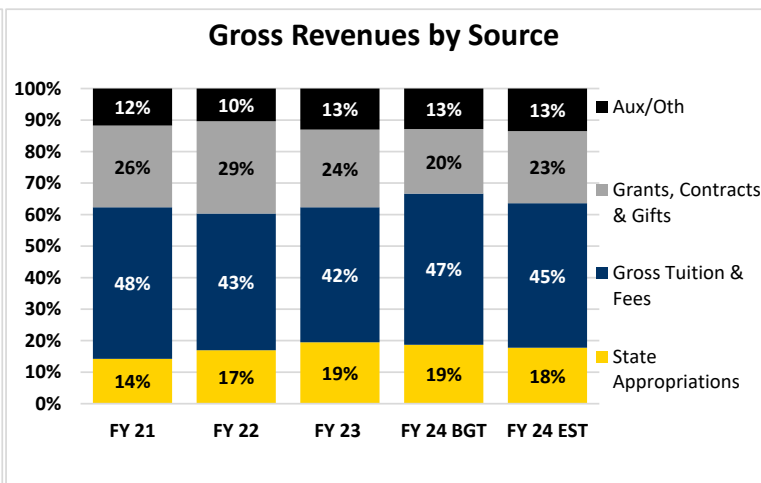
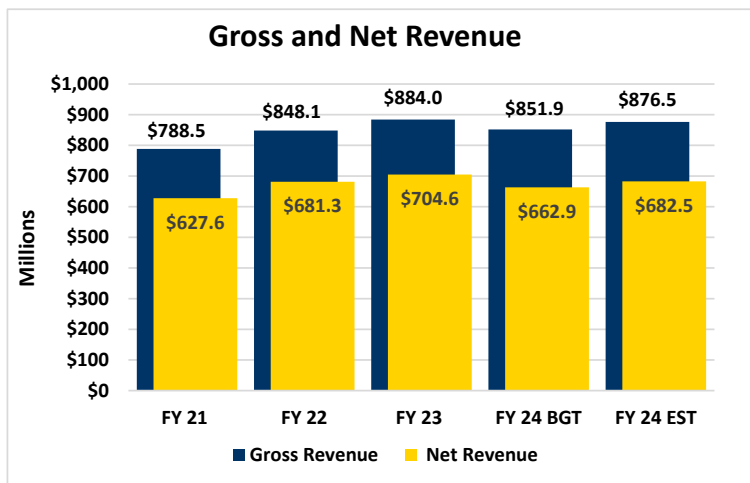
NORTHERN ARIZONA UNIVERSITY - TUITION AND FEES REVENUE

(\$000)

	FY22	FY23	FY24 BGT	FY24 EST	Δ FY23/FY24 EST		Δ FY24 BGT/FY24 EST	
Base Tuition	263,250	\$268,953	291,268	\$284,995	16,042	6%	(6,273)	-2%
NR UG	98,024	\$92,571	89,796	\$83,881	(8,690)	-9%	(5,915)	-7%
RES UG	136,236	\$140,058	152,052	\$154,941	14,883	11%	2,888	2%
NR Grad	11,429	\$17,534	29,708	\$25,703	8,169	47%	(4,005)	-13%
RES Grad	17,561	\$18,790	19,712	\$20,470	1,680	9%	758	4%
Online	35,601	\$33,739	34,931	\$33,690	(49)	0%	(1,241)	-4%
NR UG	8,834	\$6,811	6,658	\$5,995	(817)	-12%	(663)	-10%
RES UG	13,722	\$12,997	12,528	\$12,558	(440)	-3%	29	0%
NR Grad	4,519	\$5,253	6,504	\$5,709	456	9%	(795)	-12%
RES Grad	8,526	\$8,677	9,241	\$9,428	750	9%	187	2%
Prog Fees	11,809	\$8,885	9,535	\$10,139	1,253	14%	604	6%
UG	4,477	\$922	957	\$957	35	4%	-	0%
Grad	7,332	\$7,963	8,578	\$9,182	1,218	15%	604	7%
College Fee	0	\$11,973	12,704	\$12,399	426	4%	(305)	-2%
UG		\$11,973	12,704	\$12,399	426	4%	(305)	-2%
Grad					-	-	-	-
Course Fees	3,216	\$17	0	\$0	(17)	-100%	-	-
UG	3,153	\$0	0	\$0	0	-100%	-	-
Grad	63	\$17	0	\$0	(17)	-100%	-	-
Summer & Winter Sessions	22,960	\$20,400	22,580	\$24,002	3,602	18%	1,422	6%
Mandatory Fees	27,353	\$27,512	29,834	\$29,206	1,694	6%	(628)	-2%
UG	24,530	\$24,334	26,592	\$25,832	1,499	6%	(760)	-3%
Grad	2,823	\$3,178	3,242	\$3,374	196	6%	132	4%
Other Misc	3,570	\$3,357	3,570	\$3,570	213	6%	(0)	0%
Total Tuition & Fees	367,759	374,836	404,422	398,000	23,164	6%	(6,422)	-2%



FY 2024 ANNUAL BUDGET - FALL UPDATE



NORTHERN ARIZONA UNIVERSITY
FY23 INITIAL BUDGET vs. FY23 ACTUAL
(\$ millions)

	FY23 BUDGET	FY23 ACTUAL	VARIANCE	
			\$	%
Revenues				
State General Fund Appropriation	\$126.4	\$151.0	\$24.6	19.5%
State Appropriation - Research Infrastructure	\$5.3	\$5.3	\$0.0	0.0%
State Appropriation - Capital Infrastructure	\$4.8	\$4.8	\$0.0	0.0%
State Appropriations - AFAT	\$1.3	\$1.3	\$0.0	0.3%
Total General Fund Appropriation	\$137.8	\$162.4	\$24.6	17.9%
State Appropriation Transfer - Arizona Teachers Academy	\$4.8	\$4.1	(\$0.7)	(14.6%)
State Appropriation Transfer - Arizona Promise Program	\$0.0	\$4.2		
Tuition and Fees	\$377.4	\$374.8	(\$2.6)	(0.7%)
less Scholarship Allowance	(\$171.2)	(\$179.4)	(\$8.2)	4.8%
Net Tuition and Fees	\$206.2	\$195.5	(\$10.8)	(5.2%)
Grants & Contracts -- Research	\$72.0	\$94.6	\$22.6	31.4%
Financial Aid Grants (Primarily Federal Pell Grants)	\$42.5	\$39.2	(\$3.3)	(7.8%)
COVID-19 Relief Funding	\$14.4	\$11.9	(\$2.5)	(17.4%)
Private Gifts	\$25.0	\$50.6	\$25.6	102.4%
Technology & Research Initiative Fund (TRIF)	\$17.7	\$19.6	\$1.9	10.7%
Auxiliary Revenues, Net	\$69.0	\$77.9	\$8.9	12.9%
Other Revenues	\$31.0	\$44.7	\$13.7	44.0%
Total Other Revenues	\$271.6	\$338.5	\$66.9	24.6%
Total Revenues	\$620.4	\$704.6	\$80.0	12.9%
Salaries and Wages	\$270.0	\$294.0	\$24.0	8.9%
Benefits	\$90.0	\$93.4	\$3.4	3.8%
All Other Operating	\$149.0	\$164.2	\$15.2	10.2%
Scholarships & fellowships, Net of Scholarship Allowance	\$37.7	\$30.6	(\$7.1)	(18.8%)
Interest on Indebtedness	\$19.8	\$24.0	\$4.2	21.2%
Depreciation	\$46.0	\$53.6	\$7.6	16.5%
Pension Liability/OPEB (GASB 68 & GASB 45)	\$0.0	(\$9.8)	(\$9.8)	--
Total Expenses	\$612.5	\$650.0	\$37.5	6.1%
Net Increase	\$7.9	\$54.6	\$46.7	

THE UNIVERSITY OF ARIZONA
UNIVERSITY QUARTERLY FINANCIAL STATUS UPDATE REPORT-Includes UAGC
FY 2024 (WITH FY 2023 COMPARATIVE DATA)
For the Period Ended September 30, 2023
(\$ millions)

OPERATING BUDGET											FY 2023		
FY 2024 OPERATING BUDGET		YEAR TO DATE	CURRENT PROJECTED @ Sep 30, 2023	\$ VARIANCE BETWEEN BUDGET & PROJECTED	% VARIANCE BETWEEN BUDGET & PROJECTED	FY 2023 UNAUDITED JUNE 30, 2023	\$ VARIANCE BETWEEN FY23 ACTUAL & CURRENT PROJECTED						
Revenues													
State General Fund Appropriation	\$ 350.7	\$ 88.2	\$ 352.8	\$ 2.1	(a) 0.6%	\$ 348.0	\$ 4.8						
State Appropriation - Research Infrastructure	14.3	3.6	14.3	-	0.0%	14.3	-						
State Appropriation - Capital Infrastructure	11.5	2.9	11.5	-	0.0%	11.3	0.2						
State Appropriation - AFAT	2.7	2.7	2.7	-	0.0%	2.7	-						
State Appropriation Transfer - Arizona Teachers Academy	2.9	-	2.9	-	0.0%	2.6	0.3						
State Appropriation Transfer - Arizona Promise Program	7.9	-	7.9	-	0.0%	4.7	3.2						
State Appropriation Transfer - Camp Verde Meat Processing Facility	-	-	-	-	0.0%	9.7	(9.7)						
State Appropriation Transfer - Enclosed Feed Facility	-	-	-	-	0.0%	9.5	(9.5)						
State Appropriation Transfer - Food Product and Safety Laboratory	-	-	-	-	0.0%	10.9	(10.9)						
Capital Outlay Transfer - Mining, Mineral and Natural Resources Educational Museum	-	-	-	-	0.0%	12.0	(12.0)						
Tuition and Fees	1,524.1	382.1	1,528.0	3.9	(b) 0.3%	1,086.2	441.8						
less Scholarship Allowance	(526.7)	(136.2)	(535.3)	(8.6)	(c) -1.6%	(368.3)	(167.0)						
Net Tuition and Fees	997.4	245.9	992.7	(4.7)	-0.5%	717.9	274.8						
Grants & Contracts	\$ 776.6	\$ 198.8	\$ 867.6	\$ 91.0	(d) 11.7%	\$ 860.7	\$ 6.9						
Financial Aid Grants (Primarily Federal Pell Grants)	68.8	16.6	68.8	-	0.0%	62.0	6.8						
Governor's Emergency Education Relief (GEERF) – Allocation	-	-	10.0	10.0	(e) 100.0%	0.6	9.4						
Private Gifts	108.9	27.7	111.9	3.0	(f) 2.8%	108.6	3.3						
Technology & Research Initiative Fund (TRIF)	33.9	8.5	38.9	5.0	(g) 14.7%	36.8	2.1						
Auxiliary Revenues, Net	221.9	69.3	231.9	10.0	(h) 4.5%	219.8	12.1						
Other Revenues	168.8	30.7	178.8	10.0	(i) 5.9%	163.1	15.7						
Special Item- Transfer of Operations	-	-	-	-	-	67.9	(67.9)						
Total Revenues	\$ 2,766.3	\$ 694.9	\$ 2,892.7	\$ 126.4	4.6%	\$ 2,663.1	\$ 229.6						
Expenses													
Salaries and Wages	\$ 1,301.9	\$ 341.8	\$ 1,347.5	\$ 45.6	(j) 3.5%	\$ 1,184.1	\$ 163.4						
Benefits	407.8	108.1	431.2	23.4	(j) 5.7%	382.7	48.5						
All Other Operating	717.1	203.8	793.0	75.9	(k) 10.6%	696.5	96.5						
Scholarships & Fellowships, Net of Scholarship Allowance	75.4	18.9	75.4	-	0.0%	73.3	2.1						
Interest on Indebtedness	59.1	14.0	56.1	(3.0)	(l) -5.1%	56.4	(0.3)						
Depreciation and amortization	176.1	51.0	203.7	27.6	(m) 15.7%	190.8	12.9						
Total Expenses	\$ 2,737.4	\$ 737.6	\$ 2,906.9	\$ 169.5	6.2%	\$ 2,583.8	\$ 323.1						
Net Increase (Decrease)	\$ 28.9	\$ (42.8)	\$ (14.2)	\$ (43.1)	(149.1%)	\$ 79.3	\$ (93.5)						

Monthly days' cash on hand at June 30, 2024 is projected to be 97 days compared to 110 days at June 30, 2023.

- (a) Increase to agree to total actual state appropriations for various statewide adjustments.
- (b) Increase to align with fall enrollment projections.
- (c) Increase to align with fall enrollment and awards.
- (d) Increase associated with higher grant and contract awards through Q1 and FY23 ending financial results.
- (e) Increase due to additional funds to be received in fiscal year 2024.
- (f) Increase associated with higher gifts through Q1.
- (g) Increase based on expected ABOR awards and FY23 ending financial results.
- (h) Increase associated with fall enrollment and earnings through Q1.
- (i) Increase associated with increased earnings through Q1 and FY23 ending financial results.
- (j) Increase associated with higher grant and contract and auxiliary activities through Q1.
- (k) Increase associated with higher grant and contract and auxiliary activities through Q1.
- (l) Decrease due to the implementation of GASB Statement No. 96, *Subscription-based Information Technology Arrangements* , which was implemented in Fiscal Year 2023.
- (m) Increase due to the implementation of GASB Statement No. 96, *Subscription-based Information Technology Arrangements* , which was implemented in Fiscal Year 2023, and depreciation and amortization for UAGC that was not included in the Annual Operating Budget.



Quarterly Status Update - Q1 FY 2024
(Dollars in Millions)

CHANGE IN NET POSITION				
	FY 2024 Budgeted	FY 2024 Projected	Change in Net Position Variance	
UA	\$ 28.9	\$ (14.2)	\$	(43.1)

MONTHLY DAYS CASH ON HAND			
	FY 2023 Actual	FY 2024 Budgeted	FY 2024 Projected
UA	110	152	97
	75%	Median	125%
Moody's US Public University Range (FY 2022)	140	187	234

CHANGE IN NET POSITION: BUDGETED VS. PROJECTED				
Revenues:				
State General Fund Appropriation	\$	2.1	Increase to agree to total actual state appropriations for various statewide adjustments.	
Tuition and Fees		3.9	Increase to align with fall enrollment projections.	
Scholarship Allowance		(8.6)	Increase to align with fall enrollment and awards.	
Grants & Contracts		91.0	Increase associated with higher grant and contract awards through Q1 and FY23 ending financial results.	
Governor's Emergency Education Relief (GEERF) – Allocation		10.0	Increase due to additional funds to be received in fiscal year 2024.	
Private Gifts		3.0	Increase associated with higher gifts through Q1.	
Technology & Research Initiative Fund (TRIF)		5.0	Increase based on expected ABOR awards and FY23 ending financial results.	
Auxiliary Revenues, Net		10.0	Increase associated with fall enrollment and earnings through Q1.	
Other Revenues		10.0	Increase associated with increased earnings through Q1 and FY23 ending financial results.	
Total Change in Revenues	\$	126.4		
Expenses:				
Salaries and Wages	\$	45.6	Increase associated with higher grant and contract and auxiliary activities through Q1.	
Benefits		23.4	Increase associated with higher grant and contract and auxiliary activities through Q1.	
All Other Operating		75.9	Increase associated with higher grant and contract and auxiliary activities through Q1.	
Interest on Indebtedness		(3.0)	Decrease due to the implementation of GASB Statement No. 96, <i>Subscription-based Information Technology Arrangements</i> , which was implemented in Fiscal Year 2023.	
Depreciation and amortization		27.6	Increase due to the implementation of GASB Statement No. 96, <i>Subscription-based Information Technology Arrangements</i> , which was implemented in Fiscal Year 2023, and depreciation and amortization for UAGC that was not included in the Annual Operating Budget.	
Total Change in Expenses	\$	169.5		
Net Variance	\$	(43.1)		

THE UNIVERSITY OF ARIZONA
UNIVERSITY QUARTERLY FINANCIAL STATUS UPDATE REPORT-Excludes UAGC
FY 2024 (WITH FY 2023 COMPARATIVE DATA)
For the Period Ended September 30, 2023
(\$ millions)

	OPERATING BUDGET						FY 2023		
	FY 2024 OPERATING BUDGET	YEAR TO DATE	CURRENT PROJECTED @ Sep 30, 2023	\$ VARIANCE BETWEEN BUDGET & PROJECTED		% VARIANCE BETWEEN BUDGET & PROJECTED	FY 2023 UNAUDITED JUNE 30, 2023	\$ VARIANCE BETWEEN FY23 ACTUAL & CURRENT PROJECTED	
Revenues									
State General Fund Appropriation	\$ 350.7	\$ 88.2	\$ 352.8	\$ 2.1	(a)	0.6%	\$ 348.0	\$ 4.8	
State Appropriation - Research Infrastructure	14.3	3.6	14.3	-		0.0%	14.3	-	
State Appropriation - Capital Infrastructure	11.5	2.9	11.5	-		0.0%	11.3	0.2	
State Appropriation - AFAT	2.7	2.7	2.7	-		0.0%	2.7	-	
State Appropriation Transfer - Arizona Teachers Academy	2.9	-	2.9	-		0.0%	2.6	0.3	
State Appropriation Transfer - Arizona Promise Program	7.9	-	7.9	-		0.0%	4.7	3.2	
State Appropriation Transfer - Camp Verde Meat Processing Facility	-	-	-	-		0.0%	9.7	(9.7)	
State Appropriation Transfer - Enclosed Feed Facility	-	-	-	-		0.0%	9.5	(9.5)	
State Appropriation Transfer - Food Product and Safety Laboratory	-	-	-	-		0.0%	10.9	(10.9)	
Capital Outlay Transfer - Mining, Mineral and Natural Resources Educational Museum	-	-	-	-		0.0%	12.0	(12.0)	
Tuition and Fees	1,138.3	285.6	1,142.2	3.9	(b)	0.3%	1,086.2	56.0	
less Scholarship Allowance	(372.0)	(97.5)	(380.6)	(8.6)	(c)	-2.3%	(368.3)	(12.3)	
Net Tuition and Fees	766.3	188.1	761.6	(4.7)		-0.6%	717.9	43.7	
Grants & Contracts	\$ 776.6	\$ 198.8	\$ 867.6	\$ 91.0	(d)	11.7%	\$ 860.7	\$ 6.9	
Financial Aid Grants (Primarily Federal Pell Grants)	68.8	16.6	68.8	-		0.0%	62.0	6.8	
Governor's Emergency Education Relief (GEERF) – Allocation	-	-	10.0	10.0	(e)	100.0%	0.6	9.4	
Private Gifts	108.9	27.7	111.9	3.0	(f)	2.8%	108.6	3.3	
Technology & Research Initiative Fund (TRIF)	33.9	8.5	38.9	5.0	(g)	14.7%	36.8	2.1	
Auxiliary Revenues, Net	221.9	69.3	231.9	10.0	(h)	4.5%	219.8	12.1	
Other Revenues	168.8	30.7	178.8	10.0	(i)	5.9%	163.1	15.7	
Special Item- Transfer of Operations	-	-	-	-		-	67.9	(67.9)	
Total Revenues	\$ 2,535.2	\$ 637.1	\$ 2,661.6	\$ 126.4		5.0%	\$ 2,663.1	\$ (1.5)	
Expenses									
Salaries and Wages	\$ 1,185.9	\$ 312.8	\$ 1,231.5	\$ 45.6	(j)	3.8%	\$ 1,184.1	\$ 47.4	
Benefits	370.9	98.9	394.1	23.2	(j)	6.3%	382.7	11.4	
All Other Operating	620.6	179.7	696.5	75.9	(k)	12.2%	696.5	-	
Scholarships & Fellowships, Net of Scholarship Allowance	75.4	18.9	75.4	-		0.0%	73.3	2.1	
Interest on Indebtedness	59.1	14.0	56.1	(3.0)	(l)	-5.1%	56.4	(0.3)	
Depreciation and amortization	176.1	47.0	187.8	11.7	(m)	6.6%	190.8	(3.0)	
Total Expenses	\$ 2,488.0	\$ 671.3	\$ 2,641.4	\$ 153.4		6.2%	\$ 2,583.8	\$ 57.6	
Net Increase (Decrease)	\$ 47.2	\$ (34.2)	\$ 20.2	\$ (27.0)		(57.2%)	\$ 79.3	\$ (59.1)	

Monthly days' cash on hand at June 30, 2024 is projected to be 97 days compared to 110 days at June 30, 2023.

- (a) Increase to agree to total actual state appropriations for various statewide adjustments.
- (b) Increase to align with fall enrollment projections.
- (c) Increase to align with fall enrollment and awards.
- (d) Increase associated with higher grant and contract awards through Q1 and FY23 ending financial results.
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- (g) Increase based on expected ABOR awards and FY23 ending financial results.
- (h) Increase associated with fall enrollment and earnings through Q1.
- (i) Increase associated with increased earnings through Q1 and FY23 ending financial results.
- (j) Increase associated with higher grant and contract and auxiliary activities through Q1.
- (k) Increase associated with higher grant and contract and auxiliary activities through Q1.
- (l) Decrease due to the implementation of GASB Statement No. 96, *Subscription-based Information Technology Arrangements* , which was implemented in Fiscal Year 2023.
- (m) Increase due to the implementation of GASB Statement No. 96, *Subscription-based Information Technology Arrangements* , which was implemented in Fiscal Year 2023.

THE UNIVERSITY OF ARIZONA
UNIVERSITY QUARTERLY FINANCIAL STATUS UPDATE REPORT- UAGC only
FY 2024 (WITH FY 2023 COMPARATIVE DATA)
For the Period Ended Sep 30, 2023
(\$ millions)

OPERATING BUDGET						FY 2023	
FY 2024 OPERATING BUDGET	YEAR TO DATE	CURRENT PROJECTED @ Sep 30, 2023	\$ VARIANCE BETWEEN BUDGET & PROJECTED		% VARIANCE BETWEEN BUDGET & PROJECTED	FY 2023 UNAUDITED JUNE 30, 2023	\$ VARIANCE BETWEEN FY23 ACTUAL & CURRENT PROJECTED
Revenues							
State General Fund Appropriation			\$ -		0.0%	\$ -	\$ -
State Appropriation - Research Infrastructure			-		0.0%	-	-
State Appropriation - Capital Infrastructure			-		0.0%	-	-
State Appropriation - AFAT			-		0.0%	-	-
State Appropriation Transfer - Arizona Teachers Academy			-		0.0%	-	-
State Appropriation Transfer - Arizona Promise Program			-		0.0%	-	-
State Appropriation Transfer - Camp Verde Meat Processing Facility			-		0.0%	-	-
State Appropriation Transfer - Enclosed Feed Facility			-		0.0%	-	-
State Appropriation Transfer - Food Product and Safety Laboratory			-		0.0%	-	-
Capital Outlay Transfer - Mining, Mineral and Natural Resources Educational Museum			-		0.0%	-	-
Tuition and Fees	385.8	385.8	-		0.0%	-	385.8
less Scholarship Allowance	(154.7)	(154.7)	-		0.0%	-	(154.7)
Net Tuition and Fees	231.1	231.1	-		0.0%	-	231.1
Grants & Contracts	\$ -		\$ -		0.0%	\$ -	\$ -
Financial Aid Grants (Primarily Federal Pell Grants)	-		-		0.0%	-	-
Private Gifts	-		-		0.0%	-	-
Technology & Research Initiative Fund (TRIF)	-		-		0.0%	-	-
Auxiliary Revenues, Net	-		-		0.0%	-	-
Other Revenues	-		-		0.0%	-	-
Total Revenues	\$ 231.1	\$ 231.1	\$ -		0.0%	\$ -	\$ 231.1
Expenses							
Salaries and Wages	\$ 116.0	\$ 116.0	\$ -		0.0%	\$ -	\$ 116.0
Benefits	36.9	37.1	0.2	(a)	0.5%	-	37.1
All Other Operating	96.5	96.5	-		0.0%	-	96.5
Scholarships & Fellowships, Net of Scholarship Allowance	-		-		0.0%	-	-
Interest on Indebtedness	-		-		0.0%	-	-
Depreciation and amortization	-	15.9	15.9	(b)	100.0%	-	15.9
Total Expenses	\$ 249.4	\$ 265.5	\$ 16.1		6.5%	\$ -	\$ 265.5
Net Increase (Decrease)	\$ (18.3)	\$ (34.4)	\$ (16.1)		(88.0%)	\$ -	\$ (34.4)

Notes:

FY 2023 Unaudited June 30, 2023 data is not presented since UAGC revenue and expense activity was not part of the University of Arizona for FY23.

(a) Minor adjustment associated with the University of Arizona benefit rates.

(b) Increase due to depreciation and amortization that was not included in the Annual Operating Budget.

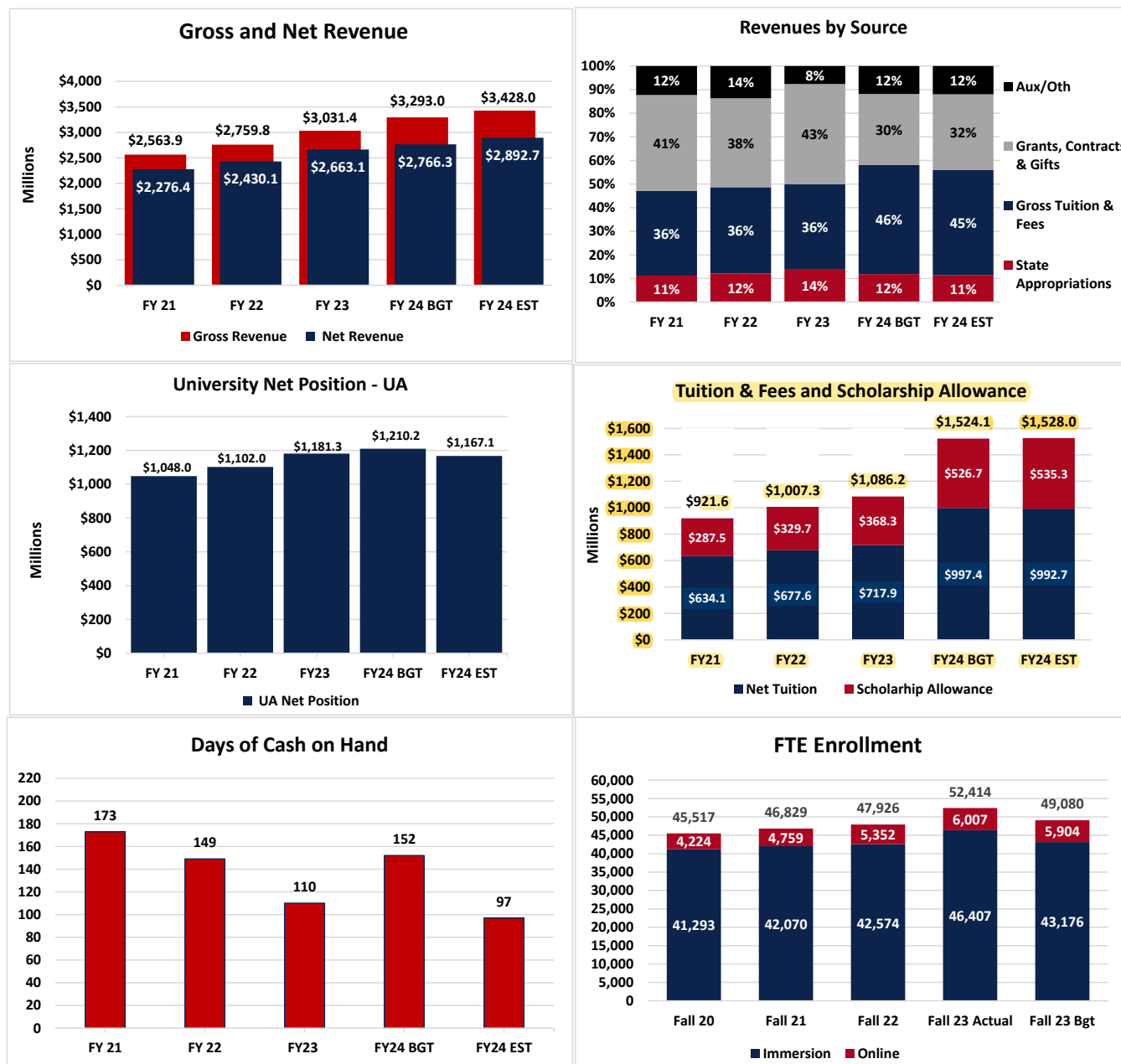
UNIVERSITY OF ARIZONA - TUITION AND FEES REVENUE

(\$000)

	FY22	FY23	FY24 BGT	FY24 EST	Δ FY23/FY24 EST		Δ FY24 BGT/FY24 EST	
Base Tuition	728,341	781,298	822,547	820,124	38,826	5%	(2,423)	0%
NR UG	383,184	433,067	470,719	460,907	27,840	6%	(9,812)	-2%
RES UG	212,200	209,622	207,850	216,672	7,050	3%	8,822	4%
NR Grad	69,552	72,684	73,517	73,183	499	1%	(334)	0%
RES Grad	63,404	65,925	70,461	69,362	3,437	5%	(1,099)	-2%
Online	92,149	98,918	109,280	110,307	11,389	12%	1,027	1%
NR UG	34,807	46,214	53,507	58,787	12,573	27%	5,280	10%
RES UG	13,679	11,883	13,758	9,864	(2,018)	-17%	(3,894)	-28%
NR Grad	31,402	30,062	30,941	30,508	447	1%	(433)	-1%
RES Grad	12,262	10,760	11,074	11,147	387	4%	73	1%
Prog Fees/Diff	34,863	37,803	35,729	38,509	706	2%	2,780	8%
UG	18,784	20,374	19,312	20,850	476	2%	1,538	8%
Grad	16,079	17,430	16,417	17,659	230	1%	1,242	8%
College Fee					0	-	0	-
UG					0	-	0	-
Grad					0	-	0	-
Course Fees	7,348	7,796	7,518	8,269	473	6%	751	10%
UG	6,760	7,173	6,917	7,608	435	6%	691	10%
Grad	588	623	601	661	38	6%	60	10%
Ext Ed Fees	30,712	42,110	36,371	40,520	(1,589)	-4%	4,149	11%
Non Degree	5,682	5,449	5,796	5,599	150	3%	(197)	-3%
Summer Session	32,853	30,067	33,513	32,030	1,964	7%	(1,483)	-4%
UAGC			385,800	385,800	385,800	-	0	0%
Mandatory Fees	52,559	59,813	62,040	62,886	3,073	5%	846	1%
UG	43,099	49,047	50,873	51,567	2,520	5%	694	1%
Grad	9,460	10,766	11,167	11,319	553	5%	152	1%
Other Misc (incl Bad Debt)	22,770	22,946	25,477	23,909	962	4%	(1,569)	-6%
Total Tuition & Fees	1,007,278	1,086,200	1,524,072	1,527,953	441,753	41%	3,881	0.3%



FY 2024 ANNUAL BUDGET - FALL UPDATE



UNIVERSITY OF ARIZONA
FY23 INITIAL BUDGET vs. FY23 ACTUAL
(\$ millions)

	FY23 BUDGET	FY23 ACTUAL (Unaudited)	VARIANCE	
			\$	%
Revenues				
State General Fund Appropriation	\$265.9	\$307.6	\$41.7	15.7%
State Appropriation - Research Infrastructure	\$14.2	\$14.2	\$0.0	0.0%
State Appropriation - Capital Infrastructure	\$11.1	\$11.1	\$0.0	0.0%
State Appropriations - AFAT	\$2.7	\$2.7	\$0.0	0.0%
Total General Fund Appropriation	\$293.9	\$335.6	\$41.7	14.2%
State Appropriation Transfer - Arizona Teachers Academy	\$1.5	\$3.1	\$1.6	106.7%
State Appropriation Transfer - Arizona Promise Program	\$0.0	\$0.0	\$0.0	--
Tuition and Fees	\$924.6	\$1,007.3	\$82.7	8.9%
less Scholarship Allowance	(\$293.2)	(\$329.7)	(\$36.5)	12.4%
Net Tuition and Fees	\$631.4	\$677.6	\$46.2	7.3%
Grants & Contracts -- Research	\$656.3	\$779.6	\$123.3	18.8%
Financial Aid Grants (Primarily Federal Pell Grants)	\$56.3	\$59.3	\$3.0	5.3%
Higher Education Emergency Relief (HEERF) – Student	43.2	38.2	(\$5.0)	(11.6%)
Higher Education Emergency Relief (HEERF) – Institutional	47.1	49.9	\$2.8	5.9%
Private Gifts	91.8	109.2	\$17.4	19.0%
Technology & Research Initiative Fund (TRIF)	30.0	46.1	\$16.1	53.7%
Auxiliary Revenues, Net	\$151.0	\$207.2	\$56.2	37.2%
Other Revenues	\$169.3	\$124.3	(\$45.0)	(26.6%)
Total Other Revenues	\$1,245.0	\$1,413.8	\$168.8	13.6%
Total Revenues	\$2,171.8	\$2,430.1	\$259.9	12.0%
Salaries and Wages	\$999.0	\$1,068.5	\$69.5	7.0%
Benefits	\$335.6	\$342.3	\$6.7	2.0%
All Other Operating	\$524.5	\$632.4	\$107.9	20.6%
HEERF Student Emergency Grants	\$43.2	\$38.2	(\$5.0)	(11.6%)
Scholarships & fellowships, Net of Scholarship Allowance	\$60.8	\$67.7	\$6.9	11.3%
Interest on Indebtedness	\$56.2	\$58.7	\$2.5	4.4%
Depreciation	\$148.0	\$168.3	\$20.3	13.7%
Pension Liability/OPEB (GASB 68 & GASB 45)			\$0.0	--
Total Expenses	\$2,167.3	\$2,376.1	\$208.8	9.6%
Net Increase	\$4.5	\$54.0	\$49.5	1100.0%

EXECUTIVE SUMMARY

Item Name: **Approval of Tuition and Fee Changes for the 2024-2025 Academic Year in Order to Simplify Student Fees at the University of Arizona**

☒ Action Item

Requested Action: **Requested Action:** The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for approval a suite of new and adjusted fees for the 2024-2025 academic year at the University of Arizona. These adjustments include establishing new consolidated fee categories and adjusting tuition and/or fee levels outside of the approved maximums in order to allow the university to eliminate all graduate and undergraduate course fees and reduce the number of mandatory program fees.

Background/History of Previous Board Action

- This agenda item covers a portion of UArizona's student tuition and fee requests, particularly related to reimagining the approach to most fees, along with several specific requests for individual programs. It does not cover base undergraduate tuition, housing rates, meal plan rates, nor tuition for Medicine or Veterinary Medicine; those items will be announced on November 15, 2023.

Summary of University of Arizona's Requests

- Beginning in 2024-2025, UArizona proposes to simplify its undergraduate tuition and fees structure by establishing an undergraduate College Fee, thereby eliminating 7 differential tuitions, nearly 30 undergraduate program fees, and 420 undergraduate course fees, other than the W.A. Franke Honors College program fee. The proposed College Fee has four rate tiers ranging from \$550 to \$1,800 per year depending on the primary college for resident students and \$800 to \$2,600 per year for nonresident students. Below is the proposed College Fee structure:

Contact Information:

Lisa Rulney, UArizona

Ingentry@arizona.edu

520-621-5977

EXECUTIVE SUMMARY

	2024-2025 Proposal	
	Resident	Non-Resident
Tier 1	\$550	\$800
Tier 2	\$900	\$1,300
Tier 3	\$1,300	\$1,900
Tier 4	\$1,800	\$2,600

- Also beginning in 2024-2025, UArizona proposes to simplify its mandatory fees by combining them into a single Student Engagement Fee.
- UArizona maintains its guaranteed tuition program for 2024-2025, so 99% of continuing undergraduate students will see no base tuition increases, however students will pay a college fee under the proposal.
- In conjunction with the simplification efforts for undergraduate students, beginning in 2024-2025, UArizona proposes to simplify tuition and fees for graduate students by rolling all previously approved mandatory fees into graduate tuition and eliminating 377 graduate course fees. Where applicable, graduate students will still pay a program fee.
- For the W.A. Franke Honors College, UArizona proposes raising the program fee from \$475/term to \$600/term, while Online & Distance Education and Sierra Vista Campus will remain at \$95/term.
- For the College of Nursing, UArizona proposes shifting its the Master of Science in Nursing - Entry to the Profession in line with its other graduate offerings, from a fixed rate approach of \$48,000/program for residents and \$68,000 for non-residents to a \$5,000/term program fee for both residents and non-residents. UArizona anticipates the shift will reduce administrative burden and remain financially equivalent, resulting in the same total investment for students and generating the same amount of revenue to support the cost of the program.
- For Eller College of Management, UArizona proposes setting the inaugural per credit rate for its new Master of Science in Business Analytics offered in Chandler at \$1,350/in-state and \$1,600/out-of-state.
- For the Mel & Enid Zuckerman College of Public Health, UArizona proposes ensuring parity between its two Colleges of Medicine in the dual degree MD-MPH

program by instituting the same \$750/term program fee for College of Medicine - Tucson students that currently exists for College of Medicine - Phoenix Students.

Strategic Implications

- Revenues generated from tuition and fees play a primary role in funding the University of Arizona and board strategic and business plans.
- Adequate state funding is critical to making Arizona's public universities accessible and affordable and the level of state support or lack thereof, is one driver of tuition decisions. Along with general fund appropriations, tuition and fee revenues support the operations and maintenance of UArizona. Lack of sufficient funding from these combined sources limits UArizona's ability to meet their planned goals.

Cost Summary

- The new College Fee structure will generate an estimated \$38.3M in revenue or approximately 3.8% of currently forecasted net tuition and fees, most of this a direct replacement of existing undergraduate course and program fee revenue. These revenues will be used to support the university's Center for Assessment, Teaching, and Technology, support 14% need based financial aid, and direct instructional and academic support costs within the colleges.

Statutory/Policy Requirements

- The Arizona Constitution Art. XI Sec. 6 provides that university "instruction furnished shall be as nearly free as possible." Article XI Sec.10 provides that the "legislature shall make such appropriations, to be met by taxation, as shall insure the proper maintenance of all state educational institutions and shall make such special appropriations as shall provide for their development and improvement."
- A.R.S. §15-1626 General Administrative Powers of the Board authorizes the Board to establish tuition.
- Board Policies 4-101 through 4-105 outline the process for which the Board sets tuition and fees.



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October 6, 2023

Dear Regents,

At the University of Arizona, we believe that students and their families deserve stability and predictability when planning for college. When we make it easier to understand the full commitment necessary to invest in their *(and thus all our)* future, our students are better prepared to thrive.

How we prepare our students is an expression of our Core Values. Our value of Integrity is reflected in the guaranteed tuition model that, starting in fall 2014, gave students certainty and which has been a consistently cited major factor in their selection to attend the University of Arizona. Our commitment to our value of Inclusion is why over 90% of our incoming undergraduate students receive financial aid. Our value of Compassion is expressed through our work to ensure that all students living in our dorms know how they will fuel their academic success, no longer wondering from where their next healthy meal will come. Our values of Exploration and Adaptation are reflected in our commitment to never stop seeking ways to support students and their families. With all of this in mind, I am proud to share this proposal as another step we will take to further simplify tuition and academic fees, starting in the 2024-2025 academic year.

This proposal is the culmination of significant planning and thoughtful reflection from leaders throughout the university community, including those in the Associated Students of the University of Arizona and the Graduate and Professional Student Council. Through these conversations there is agreement with the Board's desire to both provide greater clarity and predictability for students and their families, while retaining flexibility to meet our ongoing financial obligations. We developed this proposal in concert with the announcement you will see in November and that will share our undergraduate tuition rates, housing rates, and meal plan rates, along with tuition for our medicine and veterinary medicine programs, all in accordance with the new max growth rate approach you recently adopted.

Today, we seek your approval to:

1. Reduce the confusion for **undergraduate students** created by the complex web of tuition, differential tuition, course fees, mandatory fees, and program fees as we move to a streamlined and easier to understand approach with just three components:
 - **Base Tuition**, incorporating the Board's new approach and announced each November
 - **Student Engagement Fee**, combining all mandatory fees

- **College Fee Model**, eliminating course/program fees (except for the W.A. Franke Honors College program fee) and differential tuition

As we have always done, we will continue to reduce the financial impact of a higher education experience for those students who would otherwise not be able to afford the opportunity, creating a financial aid set-aside fund from the college fee model for this purpose.

2. Better support our **graduate students** by rolling all previously approved mandatory fees into their tuition. This will serve to reduce some of their financial burden by enabling them to use sponsored and gift-awarded remission to cover the total cost of their attendance. This also serves to ensure continuity of the services supported through those fees and creates an easier to understand approach with just two potential components:
 - **Base Tuition** – combining both tuition and (all previously approved) mandatory fees, and incorporating the Board’s new approach, to be announced each November
 - **Program Fee** – where applicable, based on the student’s primary program
3. Align the realities of the growing cost of instruction in the following ways:
 - Undergraduate
 - **W.A. Franke Honors College**: continue providing the robust student-centered efforts Honors students need, such as extracurricular activities, expansion of honors courses, faculty fellowship, support for research projects, mentoring, internship, and advisory support, as well as creating additional revenue for better student support through stipends, scholarships, and work-study via an incremental increase in the program fee to \$600/term. *Note: Online & Distance Education and Sierra Vista Campus will remain at \$95/term*
 - Graduate
 - **College of Nursing**: create operational efficiencies and make it easier for students to plan for investment in their Nursing degree by converting the Master of Science in Nursing - Entry to the Profession from a fixed rate (\$48,000/program for residents and \$68,000 for non-residents) to a financially equivalent program fee (\$5,000/term for both residents and non-residents).
 - **Eller College of Management**: ensure that the new Master of Science in Business Analytics offered in Chandler is competitive in the national landscape, allowing it to invest in the high-quality instructors, industry interfaces, and career coaching that students expect, setting the inaugural per credit rate at \$1,350/in-state and \$1,600/out-of-state.
 - **Mel & Enid Zuckerman College of Public Health**: align the financial model of the MD-MPH dual degree programs with the Colleges of Medicine in Tucson and Phoenix to correspond with the recent alignment of the program offerings, creating a new \$750/term fee for College of Medicine - Tucson which mirrors the same in the College of Medicine - Phoenix.

We are also taking several steps that, while they do not require Board approval, will improve the student experience, including:

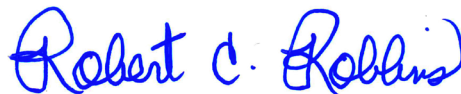
- Making the cost of a single credit hour more reasonable for part-time students by increasing the price ceiling from 7 to 12 credit hours, thus lowering the cost per credit hour.
- Clarifying that both the one-time fee for first year students and the Think Tank's rebranded *Schedule for Success* fee are not rolling into the new, ongoing Student Engagement Fee or the College Fee model respectively, by properly classifying each as an Other Academic Fee.
- Implementing additional efficiencies in the new fee structure and reducing confusion for students by phasing out the mandatory fee guarantee, beginning with the Fall 2025 cohort.
- Reducing financial burden and creating consistency for graduate students seeking a certificate from the Mel & Enid Zuckerman College of Public Health, by reducing the program fee from \$250/credit to \$75/credit.

You will find additional information on these changes in our executive summary.

These shifts will help provide stability and predictability for students and their families, while also reducing the administrative burden for numerous colleagues across the University. They are a critical part of the ongoing efforts at the University of Arizona, guided by the Board's goals, to operate efficiently and provide the highest quality experience and education for our Wildcats, for years to come.

Thank you for your consideration of our proposal and your continued support of the University of Arizona community.

Sincerely,



Robert C. Robbins
President

2024-25 University of Arizona Online Programs

UA Undergraduate

Tuition Year	Tuition Per Credit Range ^{1 2}
2023 – 2024	\$500 – \$1,746
2024 – 2025	\$500 – \$1,798
\$ Change	\$52
% Change	3%

UA Graduate

Tuition Year	Tuition Per Credit Range ^{1 2}
2023 – 2024	\$500 - \$2,222
2024 – 2025	\$500 – \$2,289
\$ Change	\$67
% Change	3%

Note:

1 All Online Undergraduate and Graduate students are assessed a mandatory Arizona Financial Aid Trust, of \$26.50 for 1-6 units, and \$53 for 7+ units.

2 All Online Undergraduate and Graduate students are assessed a mandatory \$15 Library Fee per unit, or \$105 for 7+ units.

2024-25 Distance Programs

UA Undergraduate

Tuition Year	Tuition Per Credit Range ^{1 2}
2023 – 2024	\$300 – \$1,360
2024 – 2025	\$300 – \$1,401
\$ Change	\$41
% Change	3%

UA Graduate

Tuition Year	Tuition Per Credit Range ^{1 2 3}
2023 – 2024	\$478 – \$1,250
2024 – 2025	\$478 – \$1,600
\$ Change	\$350
% Change	28%

Note:

- 1) All Distance Undergraduate and Graduate students are assessed a mandatory Arizona Financial Aid Trust, of \$26.50 for 1-6 units, and \$53 for 7+ units.
- 2) All Distance Undergraduate and Graduate students are assessed a mandatory \$12 Library Fee per unit, or \$84 for 7+ units.
- 3) \$350 increase for the Master of Science in Business Analytics (MSBA) – Non-Residential Program in Chandler.

Differential Tuition, Program Fees, Class Fees, Other Academic Fees
UNIVERSITY OF ARIZONA

					DATA INPUT						
					Per Semester						
FEE TYPE	College/School/Program	Grad/ Undergrad	Upper/Lower Division	New or Increase	Student Enrollment	Current Fee	Proposed	Incremental Increase	Incremental Increase per AY	Estimated Additional Revenue	Reference Page #
TOTAL										\$765,700	
UNDERGRADUATE - DIFFERENTIAL TUITION											-\$12,252,000
Differential Tuition	Eliminating all UGRD Differential Tuition (Attached "UA Academic Fees Elimination List F2024")	Undergrad	Both	Deleting						-\$12,252,000	9
UNDERGRADUATE - COLLEGE FEE											\$38,300,000
College Fee	College Fee Tier Levels (Details on ABOR form)	Undergrad	Both	New	31,300	\$0	\$612	\$612	1,224	\$38,300,000	45
UNDERGRADUATE - PROGRAM FEE											-\$7,597,900
Program Fee	Eliminating all UGRD Program Fees - Except for the Honors College (Attached "UA Academic Fees Elimination List F2024")	Undergrad	Both	Deleting						-\$8,597,900	9
Program Fee	Honors College	Undergrad	Both	Increase	4,000	\$475	\$600	\$125	\$250	\$1,000,000	47
GRADUATE - PROGRAM FEE											-\$9,411,300
Program Fee	College of Nursing/ Master of Science in Nursing - Entry to the Profession - Resident (from full program fix rate to a program fee; difference to tuition)	Grad	N/A	Change on Type of Fee	80	\$48,000	\$5,000	-\$43,000	-\$86,000	-\$6,880,000	49
Program Fee	College of Nursing/ Master of Science in Nursing - Entry to the Profession - Non-Resident (from full program fix rate to a program fee; difference to tuition)	Grad	N/A	Change on Type of Fee	20	\$68,000	\$5,000	-\$63,000	-\$126,000	-\$2,520,000	49
Program Fee	Mel & Enid Zuckerman College of Public Health/ MD-MPH Tucson Campus	Grad	N/A	New	45	\$0	\$750	\$750	\$1,500	\$67,500	51
Program Fee	Mel & Enid Zuckerman College of Public Health/ All graduate certificates - Notification of Change	Grad	N/A	Decrease	25	\$2,250	\$675	-\$1,575	-\$3,150	-\$78,800	
CLASS FEES											-\$8,268,700
Class Fee	Eliminating GRAD and UGRD Course Fees (Attached "UA Academic Fees Elimination List F2024")	Both	Both	Deleting						-\$8,268,700	9
OTHER FEES											-\$4,400
Other Academic Fee	Think Tank - Student Success Program (From a course fee to other academic fee) - Notification of Change	UGRD	Lower	Change on Type of Fee	2,223	\$91	\$90	-\$1	-\$2	-\$4,400	

The University of Arizona

UGRD Differential Tuition Inventory for Elimination Effective Fall 2024

COLLEGE	PROGRAM	TERM AMOUNT	SUMMER AMOUNT
Architecture, Planning & Landscape Architecture	All Undergraduate Degree Programs – Lower & Upper Divisions	\$765	N/A
Engineering	Undergraduate not in Advanced Standing	\$450	N/A
Engineering	Undergraduate in Advanced Standing	\$900	N/A
Fine Arts	All Undergraduate Degree Programs – Lower & Upper Divisions	\$300	N/A
Management	All Undergraduate Professional Programs in Management – Upper Division	\$900	\$50/unit (Also winter)
Nursing	B.S. in Nursing – Upper Division	\$3,000	N/A
Public Health	B.S. & B.A. in Public Health – Upper Division	\$50/Unit	Same Rate

UGRD Program Fees Inventory for Elimination Effective Fall 2024

COLLEGE	PROGRAM	TERM AMOUNT	SUMMER AMOUNT
Agriculture, Life & Environmental Sciences	Animal & Veterinary Sciences Majors – Lower & Upper Divisions	\$250	N/A
Agriculture, Life & Environmental Sciences	Career & Academic Services, Non-Exempt UGRD Students	\$75	N/A
Agriculture, Life & Environmental Sciences	Environmental Science: B.S. in Environmental Science – Upper Division	\$350	N/A
Agriculture, Life & Environmental Sciences	Natural Resources & the Environment: B.S. in Natural Resources – Lower & Upper Divisions	\$150	N/A
Agriculture, Life & Environmental Sciences	Norton School of Human Ecology: Human Development & Family Science – Upper Division	\$200	N/A
Agriculture, Life & Environmental Sciences	Norton School of Human Ecology: Fashion Industry's Science & Technology – Upper Division	\$250	N/A
Agriculture, Life & Environmental Sciences	Norton School of Human Ecology: Personal & Family Financial Planning – Upper Division	\$250	N/A

Agriculture, Life & Environmental Sciences	Norton School of Human Ecology: Retail & Consumer Sciences – Upper Division	\$250	N/A
Agriculture, Life & Environmental Sciences	Nutritional Sciences: B.S. in Nutritional Sciences – Pre-Major & Major	\$250	N/A
Agriculture, Life & Environmental Sciences	Nutritional Sciences: Nutrition & Food Systems – Lower & Upper Divisions	\$250	N/A
iSchool	Information: B.S. in Game Design & Development – Upper Division	\$250	N/A
iSchool	Information: B.S. & B.A. in Information Science – Upper Division	\$250	N/A
Management	Undergraduate Pre-Business Program – Lower Division	\$350	N/A
Management	Undergraduate Pre-Economics Majors – Lower Division	\$350	N/A
Science	Chemistry & Biochemistry: B.S. & B.A. in Chemistry & Biochemistry – Lower Division	\$50	N/A
Science	Chemistry & Biochemistry: B.S. & B.A. in Chemistry & Biochemistry – Upper Division	\$150	N/A
Science	Computer Science: B.S. & B.A. in Computer Science – Lower Division	\$150	N/A
Science	Computer Science: B.S. & B.A. in Computer Science – Upper Division	\$375	N/A
Science	Geosciences: B.S. in Geosciences – Lower & Upper Divisions	\$150	N/A
Science	Mind, Brain & Behavior: Neuroscience & Cognitive Science, Pre-majors	\$65	N/A
Science	Mind, Brain & Behavior: Neuroscience & Cognitive Science, Majors	\$400	N/A
Science	Mind, Brain & Behavior: Psychological Science – Upper Division	\$200	N/A
Social & Behavioral Sciences	Geography, Development & Environment: B.S. in Regional Development, B.S. & B.A. in Geography, B.A. in Environmental Studies – Upper Division	\$125	N/A
Social & Behavioral Sciences	Government & Public Policy: B.A. in Law – Upper Division	\$900	N/A

Social & Behavioral Sciences	Government & Public Policy: B.S. in Criminal Justice, B.A. in Political Science, B.S. in Public Management & Policy – Upper Division	\$450	N/A
Social & Behavioral Sciences	Journalism: Bachelor Degrees in Journalism – Lower & Upper Divisions	\$250	N/A
Social & Behavioral Sciences	PEMS: B.A. in Philosophy, Politics, Economics & Law – Upper Division	\$400	N/A
Social & Behavioral Sciences	Sociology: B.S. in Care, Health & Society – Upper Division	\$300	N/A
Social & Behavioral Sciences	Sociology: B.A. in Sociology – Upper Division	\$300	N/A

ALL Course Fees Inventory for Elimination Effective Fall 2024				
COLLEGE	DEPARTMENT	COURSE	FEE AMOUNT	PURPOSE
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 102L	\$100.00	Consumable Supplies
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 285L	\$40.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 380L	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 428L	\$70.00	Consumable Supplies
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 520	\$49.00	Consumable Supplies
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 528L	\$70.00	Consumable Supplies
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 546	\$75.00	Consumable Supplies
College of Agric and Life Sci	School of Animal & Comparative Biomedical Sciences	ACBS 582	\$50.00	Field Trip
College of Agric and Life Sci	Agricultural Education	AED 438	\$12.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AED 460	\$48.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AED 485	\$19.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AED 493B	\$100.00	Student Teaching Support

College of Agric and Life Sci	Agricultural Education	AED 496D	\$130.00	Special Exam/Test
College of Agric and Life Sci	Agricultural Education	AED 538	\$12.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AED 560	\$48.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AED 585	\$19.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AED 593B	\$100.00	Student Teaching Support
College of Agric and Life Sci	Agricultural Education	AED 596D	\$130.00	Special Exam/Test
College of Agric and Life Sci	Agricultural Education	AGTM 100	\$180.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AGTM 330	\$75.00	Field Trip
College of Agric and Life Sci	Agricultural Education	AGTM 350	\$65.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AGTM 351	\$50.00	Field Trip
College of Agric and Life Sci	Agricultural Education	AGTM 497C	\$50.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	AGTM 597C	\$50.00	Consumable Supplies
Graduate College	American Indian Studies GIDP	AIS 435	\$35.00	Field Trip
Graduate College	American Indian Studies GIDP	AIS 535	\$35.00	Field Trip
College of Agric and Life Sci	Agricultural Education	ALC 409	\$12.00	Consumable Supplies
College of Agric and Life Sci	Agricultural Education	ALC 509	\$12.00	Consumable Supplies
College of Engineering	Aerospace & Mechanical Engineering	AME 300	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 313	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 313B	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 313C	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 324L	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 400	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 401	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 410	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 422	\$100.00	Lab/Studio Supplies/Equipment

College of Engineering	Aerospace & Mechanical Engineering	AME 434	\$80.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 446	\$36.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 455	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 462	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 466	\$11.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 487	\$100.00	Consumable Supplies
College of Engineering	Aerospace & Mechanical Engineering	AME 489A	\$100.00	Consumable Supplies
College of Engineering	Aerospace & Mechanical Engineering	AME 522	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 546	\$36.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 562	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 566	\$11.00	Lab/Studio Supplies/Equipment
College of Engineering	Aerospace & Mechanical Engineering	AME 587	\$100.00	Consumable Supplies
College of Engineering	Aerospace & Mechanical Engineering	AME 589A	\$100.00	Consumable Supplies
College of Social & Behav Sci	School of Anthropology	ANTH 265	\$25.00	Consumable Supplies
College of Social & Behav Sci	School of Anthropology	ANTH 439A	\$85.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 442A	\$350.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 442B	\$350.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 455A	\$600.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 455B	\$600.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 539A	\$85.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 542A	\$350.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 542B	\$350.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 555A	\$600.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 555B	\$600.00	Field Trip
College of Social & Behav Sci	School of Anthropology	ANTH 588	\$84.00	Private Instruction
College of Social & Behav Sci	School of Anthropology	ANTH 597J	\$48.00	Field Trip

College of Social & Behav Sci	Arabic	ARB 101	\$25.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Arabic	ARB 102	\$25.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Arabic	ARB 401	\$25.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Arabic	ARB 402	\$25.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	School of Architecture	ARC 102	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Division of Art Education	ARE 130	\$10.00	Consumable Supplies
College of Fine Arts	Division of Art Education	ARE 361	\$13.00	Student Teaching Support
College of Fine Arts	Division of Art Education	ARE 493B	\$40.00	Student Teaching Support
College of Agric and Life Sci	Agricultural & Resource Economics	AREC 496A	\$100.00	Field Trip
Graduate College	GIDP on Arid Lands Resource Sciences	ARL 530	\$50.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Arid Lands Resource Sciences	ARL 590	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 100A	\$14.00	Consumable Supplies
College of Fine Arts	Art	ART 100B	\$48.00	Consumable Supplies
College of Fine Arts	Art	ART 100C	\$42.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 100D	\$42.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 100E	\$11.00	Consumable Supplies
College of Fine Arts	Art	ART 100F	\$10.00	Consumable Supplies
College of Fine Arts	Art	ART 100G	\$42.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 100J	\$51.00	Models for Art Classes
College of Fine Arts	Art	ART 200	\$75.00	Consumable Supplies
College of Fine Arts	Art	ART 203	\$10.00	Consumable Supplies
College of Fine Arts	Art	ART 205	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 244	\$100.00	Lab/Studio Supplies/Equipment

College of Fine Arts	Art	ART 246	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 250	\$78.00	Consumable Supplies
College of Fine Arts	Art	ART 251	\$78.00	Consumable Supplies
College of Fine Arts	Art	ART 253	\$80.00	Consumable Supplies
College of Fine Arts	Art	ART 255	\$83.00	Consumable Supplies
College of Fine Arts	Art	ART 256	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 265	\$83.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 266	\$75.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 273	\$99.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 280	\$75.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 285	\$19.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 286	\$97.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 287	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 289	\$67.00	Models for Art Classes
College of Fine Arts	Art	ART 301	\$53.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 305	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 326	\$60.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 340	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 341A	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 341B	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 341D	\$80.00	Consumable Supplies

College of Fine Arts	Art	ART 341E	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 343A	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 343B	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 344	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 345	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 348	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 349	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 350	\$79.00	Consumable Supplies
College of Fine Arts	Art	ART 351	\$79.00	Consumable Supplies
College of Fine Arts	Art	ART 353	\$79.00	Consumable Supplies
College of Fine Arts	Art	ART 355	\$78.00	Consumable Supplies
College of Fine Arts	Art	ART 363A	\$84.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 363B	\$43.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 365	\$79.00	Consumable Supplies
College of Fine Arts	Art	ART 366	\$75.00	Consumable Supplies
College of Fine Arts	Art	ART 368	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 373A	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 373B	\$97.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 380	\$75.00	Models for Art Classes
College of Fine Arts	Art	ART 380A	\$65.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 380B	\$65.00	Lab/Studio Supplies/Equipment

College of Fine Arts	Art	ART 385	\$30.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 386	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 387	\$91.00	Consumable Supplies
College of Fine Arts	Art	ART 388	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 389	\$67.00	Models for Art Classes
College of Fine Arts	Art	ART 401	\$53.00	Consumable Supplies
College of Fine Arts	Art	ART 405	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 422	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 426	\$60.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 437A	\$50.00	Consumable Supplies
College of Fine Arts	Art	ART 438	\$76.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 440	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 441	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 442	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 444	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 450	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 451	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 453	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 455	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 456	\$99.00	Consumable Supplies
College of Fine Arts	Art	ART 462A	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 462D	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 462E	\$90.00	Lab/Studio Supplies/Equipment

College of Fine Arts	Art	ART 465	\$98.00	Consumable Supplies
College of Fine Arts	Art	ART 466	\$75.00	Consumable Supplies
College of Fine Arts	Art	ART 467B	\$93.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 469	\$62.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 473	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 480	\$75.00	Models for Art Classes
College of Fine Arts	Art	ART 482A	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 483	\$70.00	Consumable Supplies
College of Fine Arts	Art	ART 485	\$30.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 486	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 489	\$67.00	Models for Art Classes
College of Fine Arts	Art	ART 496A	\$75.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 496B	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 501	\$53.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 505	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 522	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 526	\$60.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 537A	\$50.00	Consumable Supplies
College of Fine Arts	Art	ART 538	\$76.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 540	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 544	\$100.00	Lab/Studio Supplies/Equipment

College of Fine Arts	Art	ART 549	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 550	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 551	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 553	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 555	\$40.00	Consumable Supplies
College of Fine Arts	Art	ART 556	\$95.00	Consumable Supplies
College of Fine Arts	Art	ART 562A	\$91.00	Models for Art Classes
College of Fine Arts	Art	ART 562D	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 562E	\$90.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 565	\$98.00	Consumable Supplies
College of Fine Arts	Art	ART 566	\$75.00	Consumable Supplies
College of Fine Arts	Art	ART 567B	\$93.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 569	\$62.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 573	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 580	\$80.00	Models for Art Classes
College of Fine Arts	Art	ART 583	\$70.00	Consumable Supplies
College of Fine Arts	Art	ART 585	\$30.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 586	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Art	ART 596B	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Astronomy	ASTR 302	\$25.00	Field Trip
College of Science	Astronomy	ASTR 337	\$53.00	Field Trip
College of Science	Astronomy	ASTR 584	\$31.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	ATMO 490	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Hydrology and Atmospheric Sciences	ATMO 590	\$50.00	Lab/Studio Supplies/Equipment

College of Agric and Life Sci	Biosystems Engineering	BAT 120	\$32.00	Lab Studio Technical Support
College of Agric and Life Sci	Biosystems Engineering	BAT 205	\$20.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 120	\$32.00	Lab Studio Technical Support
College of Agric and Life Sci	Biosystems Engineering	BE 205	\$20.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 217L	\$50.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 220	\$91.00	Lab Studio Technical Support
College of Agric and Life Sci	Biosystems Engineering	BE 221	\$80.00	Lab Studio Technical Support
College of Agric and Life Sci	Biosystems Engineering	BE 297	\$50.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 350L	\$100.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 385	\$100.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 444	\$90.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 447	\$100.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 479	\$50.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 481B	\$100.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 489A	\$100.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 497C	\$50.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 544	\$90.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 547	\$100.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 579	\$50.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 581B	\$100.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Biosystems Engineering	BE 589A	\$100.00	Consumable Supplies
College of Agric and Life Sci	Biosystems Engineering	BE 597C	\$50.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	BIOC 463A	\$150.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	BIOC 573	\$150.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 210	\$90.00	Lab/Studio Supplies/Equipment

College of Engineering	Biomedical Engineering	BME 330	\$64.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 417	\$50.00	Consumable Supplies
College of Engineering	Biomedical Engineering	BME 447	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 466	\$11.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 481B	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 517	\$50.00	Consumable Supplies
College of Engineering	Biomedical Engineering	BME 547	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 566	\$11.00	Lab/Studio Supplies/Equipment
College of Engineering	Biomedical Engineering	BME 581B	\$100.00	Lab/Studio Supplies/Equipment
Eller College of Management	Eller Administration	BNAD 449	\$1,500.00	Field Trip
Eller College of Management	Eller Administration	BNAD 505	\$3,000.00	Field Trip National
Eller College of Management	Eller Administration	BNAD 596C	\$4,800.00	Field Trip
Eller College of Management	Eller Administration	BNAD 596E	\$3,100.00	Field Trip
College of Engineering	Civil and Architectural Engineering and Mechanics	CE 210	\$73.00	Lab/Studio Supplies/Equipment
College of Engineering	Civil and Architectural Engineering and Mechanics	CE 251	\$40.00	Consumable Supplies
College of Engineering	Civil and Architectural Engineering and Mechanics	CE 349	\$20.00	Lab/Studio Supplies/Equipment
College of Engineering	Civil and Architectural Engineering and Mechanics	CE 389	\$47.00	Consumable Supplies
College of Engineering	Civil and Architectural Engineering and Mechanics	CE 466	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Civil and Architectural Engineering and Mechanics	CE 566	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 301A	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 301B	\$60.00	Lab/Studio Supplies/Equipment

College of Engineering	Chemical & Environmental Engineering	CHEE 400A	\$40.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 401A	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 401B	\$30.00	Consumable Supplies
College of Engineering	Chemical & Environmental Engineering	CHEE 412	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 481B	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 500A	\$40.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 512	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Chemical & Environmental Engineering	CHEE 581B	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Chemistry and Biochemistry	CHEM 130L	\$100.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 143	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Chemistry and Biochemistry	CHEM 144	\$100.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 151	\$100.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 152	\$100.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 163	\$100.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 164	\$100.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 243A	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 243B	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 244A	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 244B	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 247A	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 247B	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 302A	\$65.00	Lab/Studio Supplies/Equipment
College of Science	Chemistry and Biochemistry	CHEM 326	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 400A	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 400B	\$120.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 412	\$140.00	Consumable Supplies

College of Science	Chemistry and Biochemistry	CHEM 446	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 447	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 512	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 521A	\$50.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 528B	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 545	\$140.00	Consumable Supplies
College of Science	Chemistry and Biochemistry	CHEM 547	\$140.00	Consumable Supplies
College of Humanities	Chinese	CHN 245	\$51.00	Consumable Supplies
College of Medicine - Tucson	Cellular & Molecular Medicine	CMM 401	\$300.00	Consumable Supplies
College of Medicine - Tucson	Cellular & Molecular Medicine	CMM 501	\$300.00	Consumable Supplies
College of Humanities	Critical Languages Program	CRL 101	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 102	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 197A	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 201	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 202	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 297A	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 301	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 302	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 397A	\$360.00	Private Instruction
College of Humanities	Critical Languages Program	CRL 497A	\$360.00	Private Instruction
College of Science	Computer Science	CSC 101	\$40.00	Equipment Refresh/Rental
College of Science	Computer Science	CSC 110	\$40.00	Equipment Refresh/Rental
College of Science	Computer Science	CSC 120	\$40.00	Equipment Refresh/Rental
College of Science	Computer Science	CSC 210	\$40.00	Equipment Refresh/Rental
College of Science	Computer Science	CSC 245	\$15.00	Lab/Studio Supplies/Equipment
College of Science	Computer Science	CSC 250	\$35.00	Lab/Studio Supplies/Equipment
College of Science	Computer Science	CSC 337	\$35.00	Lab/Studio Supplies/Equipment
College of Science	Computer Science	CSC 346	\$35.00	Lab/Studio Supplies/Equipment
College of Science	Computer Science	CSC 350	\$35.00	Equipment Refresh/Rental
College of Fine Arts	School of Dance	DNC 112A	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 112B	\$35.00	Accompanist

College of Fine Arts	School of Dance	DNC 112C	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 143	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 145	\$20.00	Accompanist
College of Fine Arts	School of Dance	DNC 152A	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 152B	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 152C	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 177C	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 177D	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 239A	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 239B	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 240A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 240B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 241A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 241B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 340A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 340B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 341A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 341B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 439A	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 439B	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 440A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 440B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 441A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 441B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 451B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 497	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 539A	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 539B	\$35.00	Accompanist
College of Fine Arts	School of Dance	DNC 540A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 540B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 541A	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 541B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 551B	\$70.00	Accompanist
College of Fine Arts	School of Dance	DNC 597	\$70.00	Accompanist

College of Engineering	Electrical & Computer Engr	ECE 175	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 220	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 274A	\$34.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 275	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 304A	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 310	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 351C	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 369A	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 372A	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 373	\$25.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 417	\$50.00	Consumable Supplies
College of Engineering	Electrical & Computer Engr	ECE 484	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 486	\$47.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 488	\$41.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 517	\$50.00	Consumable Supplies
College of Engineering	Electrical & Computer Engr	ECE 584	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 586	\$47.00	Lab/Studio Supplies/Equipment
College of Engineering	Electrical & Computer Engr	ECE 588	\$41.00	Lab/Studio Supplies/Equipment

College of Science	Ecology & Evolutionary Biology	ECOL 182L	\$47.00	Lab/Studio Supplies/Equipment
College of Science	Ecology & Evolutionary Biology	ECOL 230	\$10.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 302	\$25.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 321	\$35.00	Lab/Studio Supplies/Equipment
College of Science	Ecology & Evolutionary Biology	ECOL 346	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Ecology & Evolutionary Biology	ECOL 404F	\$166.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 406L	\$139.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 412B	\$156.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 426	\$50.00	Equipment Refresh/Rental
College of Science	Ecology & Evolutionary Biology	ECOL 428L	\$70.00	Consumable Supplies
College of Science	Ecology & Evolutionary Biology	ECOL 437	\$30.00	Lab/Studio Supplies/Equipment
College of Science	Ecology & Evolutionary Biology	ECOL 450	\$83.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 463	\$1,250.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 482	\$64.00	Lab/Studio Supplies/Equipment
College of Science	Ecology & Evolutionary Biology	ECOL 483	\$142.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 484	\$50.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 485	\$255.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 487L	\$28.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 488	\$190.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 497A	\$87.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 504F	\$166.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 506L	\$139.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 526	\$50.00	Equipment Refresh/Rental
College of Science	Ecology & Evolutionary Biology	ECOL 528L	\$70.00	Consumable Supplies
College of Science	Ecology & Evolutionary Biology	ECOL 563	\$1,250.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 575	\$25.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 582	\$64.00	Lab/Studio Supplies/Equipment
College of Science	Ecology & Evolutionary Biology	ECOL 583	\$142.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 584	\$50.00	Field Trip

College of Science	Ecology & Evolutionary Biology	ECOL 585	\$255.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 587L	\$28.00	Field Trip
College of Science	Ecology & Evolutionary Biology	ECOL 588	\$190.00	Field Trip
Eller College of Management	Economics	ECON 579	\$50.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Entomology and Insect Science	EIS 546	\$75.00	Consumable Supplies
Graduate College	GIDP on Entomology and Insect Science	EIS 597C	\$50.00	Consumable Supplies
College of Engineering	Civil and Architectural Engineering and Mechanics	EM 634	\$50.00	Consumable Supplies
College of Engineering	Engineering Administration	ENGR 488	\$100.00	Equipment Refresh/Rental
College of Engineering	Engineering Administration	ENGR 498B	\$75.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Entomology	ENTO 497C	\$50.00	Consumable Supplies
Eller College of Management	McGuire Center for Entrepreneurship	ENTR 415	\$35.00	Special Exam/Test
Eller College of Management	McGuire Center for Entrepreneurship	ENTR 515	\$35.00	Special Exam/Test
College of Agric and Life Sci	Environmental Science	ENVS 201	\$25.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 285L	\$40.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 330	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 428L	\$70.00	Consumable Supplies
College of Agric and Life Sci	Environmental Science	ENVS 475	\$25.00	Field Trip
College of Agric and Life Sci	Environmental Science	ENVS 483	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 490	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 528L	\$70.00	Consumable Supplies
College of Agric and Life Sci	Environmental Science	ENVS 575	\$25.00	Field Trip
College of Agric and Life Sci	Environmental Science	ENVS 583	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 590	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Environmental Science	ENVS 696M	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	Fine Arts Administration	FA 437A	\$50.00	Consumable Supplies

College of Fine Arts	Fine Arts Administration	FA 537A	\$50.00	Consumable Supplies
College of Agric and Life Sci	Family and Consumer Sciences	FCSC 120	\$32.00	Lab Studio Technical Support
Eller College of Management	Finance	FIN 401	\$90.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	FOOD 328	\$40.00	Consumable Supplies
College of Fine Arts	School of Theatre, Film and Television	FTV 210	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 301	\$40.00	Equipment Refresh/Rental
College of Fine Arts	School of Theatre, Film and Television	FTV 310	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 311A	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 313	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 314A	\$110.00	Equipment Refresh/Rental
College of Fine Arts	School of Theatre, Film and Television	FTV 315A	\$110.00	Equipment Refresh/Rental
College of Fine Arts	School of Theatre, Film and Television	FTV 317A	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 318	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 367	\$100.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 374	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 404	\$95.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 497G	\$75.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	FTV 498D	\$135.00	Equipment Refresh/Rental
College of Fine Arts	School of Theatre, Film and Television	FTV 498E	\$135.00	Equipment Refresh/Rental
College of Fine Arts	School of Theatre, Film and Television	FTV 504	\$95.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Global Change	GC 530	\$50.00	Lab/Studio Supplies/Equipment

College of Engineering	Mining & Geological Engineering	GEN 330	\$50.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Genetics	GENE 526	\$50.00	Equipment Refresh/Rental
Graduate College	GIDP on Genetics	GENE 573	\$150.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 303	\$14.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 330	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 397A	\$25.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 397B	\$50.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 397C	\$75.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 397D	\$100.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 403	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 416A	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 416C	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 416D	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 416E	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 416F	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 417	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 419	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 420	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 422	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 424	\$50.00	Lab/Studio Supplies/Equipment

College of Social & Behav Sci	School of Geography and Development	GEOG 430	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 439A	\$85.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 454	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 457	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 473	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 483	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 490	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 503	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 516A	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 516C	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 516D	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 516E	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 516F	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 517	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 519	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 520	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 522	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 524	\$50.00	Lab/Studio Supplies/Equipment

College of Social & Behav Sci	School of Geography and Development	GEOG 530	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 539A	\$85.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GEOG 557	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 573	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 574G	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 579	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 583	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GEOG 590	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Geosciences	GEOS 195D	\$33.00	Field Trip
College of Science	Geosciences	GEOS 251	\$22.00	Field Trip
College of Science	Geosciences	GEOS 255	\$77.00	Field Trip
College of Science	Geosciences	GEOS 302	\$91.00	Field Trip
College of Science	Geosciences	GEOS 304	\$39.00	Field Trip
College of Science	Geosciences	GEOS 306	\$48.00	Consumable Supplies
College of Science	Geosciences	GEOS 308	\$71.00	Field Trip National
College of Science	Geosciences	GEOS 330	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Geosciences	GEOS 356	\$99.00	Lab/Studio Supplies/Equipment
College of Science	Geosciences	GEOS 412B	\$156.00	Field Trip
College of Science	Geosciences	GEOS 414	\$1,970.00	Field Trip
College of Science	Geosciences	GEOS 417	\$50.00	Field Trip
College of Science	Geosciences	GEOS 423	\$100.00	Field Trip
College of Science	Geosciences	GEOS 425	\$100.00	Field Trip
College of Science	Geosciences	GEOS 439A	\$85.00	Field Trip
College of Science	Geosciences	GEOS 456	\$100.00	Field Trip
College of Science	Geosciences	GEOS 470L	\$30.00	Field Trip
College of Science	Geosciences	GEOS 477	\$189.00	Consumable Supplies

College of Science	Geosciences	GEOS 484	\$31.00	Field Trip
College of Science	Geosciences	GEOS 490	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Geosciences	GEOS 497J	\$48.00	Field Trip
College of Science	Geosciences	GEOS 497K	\$50.00	Field Trip
College of Science	Geosciences	GEOS 517	\$50.00	Field Trip
College of Science	Geosciences	GEOS 523	\$100.00	Field Trip
College of Science	Geosciences	GEOS 525	\$100.00	Field Trip
College of Science	Geosciences	GEOS 531	\$20.00	Field Trip
College of Science	Geosciences	GEOS 539A	\$85.00	Field Trip
College of Science	Geosciences	GEOS 544	\$47.00	Field Trip
College of Science	Geosciences	GEOS 554	\$195.00	Field Trip
College of Science	Geosciences	GEOS 556	\$100.00	Field Trip
College of Science	Geosciences	GEOS 570L	\$30.00	Field Trip
College of Science	Geosciences	GEOS 577	\$189.00	Consumable Supplies
College of Science	Geosciences	GEOS 584	\$31.00	Field Trip
College of Science	Geosciences	GEOS 590	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Geosciences	GEOS 597J	\$48.00	Field Trip
College of Science	Geosciences	GEOS 597K	\$50.00	Field Trip
College of Science	Geosciences	GEOS 650	\$44.00	Field Trip
College of Social & Behav Sci	School of Geography and Development	GIST 330	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GIST 416E	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GIST 417	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GIST 419	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GIST 420	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GIST 457	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Geography and Development	GIST 483	\$50.00	Lab/Studio Supplies/Equipment

College of Social & Behav Sci	School of Geography and Development	GIST 519	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	History	HIST 328	\$40.00	Consumable Supplies
W.A. Franke Honors College	Honors College	HNRS 110	\$73.00	Field Trip
Public Health, Col of	Health Promotional Services	HPS 416	\$95.00	Consumable Supplies
Public Health, Col of	Health Promotional Services	HPS 516	\$95.00	Consumable Supplies
College of Science	Hydrology and Atmospheric Sciences	HWRS 201	\$2.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 202	\$11.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 349B	\$30.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 350	\$30.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 413A	\$160.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 431	\$20.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 460A	\$65.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 490	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Hydrology and Atmospheric Sciences	HWRS 513A	\$160.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 531	\$20.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 560A	\$65.00	Field Trip
College of Science	Hydrology and Atmospheric Sciences	HWRS 590	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Hydrology and Atmospheric Sciences	HWRS 696Q	\$50.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Information	INFO 501	\$97.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Information	INFO 551	\$97.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Information	ISTA 303	\$97.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Information	ISTA 401	\$97.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	School of Information	ISTA 403	\$97.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Center for Latin-American Studies	LAS 435	\$35.00	Field Trip
College of Social & Behav Sci	Center for Latin-American Studies	LAS 535	\$35.00	Field Trip

James E Rogers College of Law	Law	LAW 564	\$31.00	Consumable Supplies
College of Social & Behav Sci	Linguistics	LING 588	\$84.00	Private Instruction
College of Social & Behav Sci	Mexican American Studies	MAS 435	\$35.00	Field Trip
College of Social & Behav Sci	Mexican American Studies	MAS 509	\$13.00	Field Trip
College of Social & Behav Sci	Mexican American Studies	MAS 535	\$35.00	Field Trip
College of Science	Mathematics	MATH 100	\$100.00	Lab Studio Technical Support
College of Science	Mathematics	MATH 485	\$21.00	Consumable Supplies
College of Science	Mathematics	MATH 574G	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Mathematics	MATH 585	\$21.00	Consumable Supplies
College of Science	Molecular & Cellular Biology	MCB 181L	\$47.00	Lab/Studio Supplies/Equipment
College of Science	Molecular & Cellular Biology	MCB 181M	\$35.00	Lab/Studio Supplies/Equipment
College of Science	Molecular & Cellular Biology	MCB 184	\$35.00	Lab/Studio Supplies/Equipment
College of Science	Molecular & Cellular Biology	MCB 285L	\$40.00	Lab/Studio Supplies/Equipment
College of Science	Molecular & Cellular Biology	MCB 303	\$150.00	Lab/Studio Supplies/Equipment
College of Science	Molecular & Cellular Biology	MCB 473	\$150.00	Lab/Studio Supplies/Equipment
College of Science	Molecular & Cellular Biology	MCB 528L	\$70.00	Consumable Supplies
College of Science	Molecular & Cellular Biology	MCB 573	\$150.00	Lab/Studio Supplies/Equipment
Eller College of Management	Management & Organizations	MGMT 310A	\$21.00	Consumable Supplies
Eller College of Management	Management & Organizations	MGMT 353	\$45.00	Consumable Supplies
Eller College of Management	Management & Organizations	MGMT 432A	\$52.00	Consumable Supplies
Eller College of Management	Management & Organizations	MGMT 564	\$31.00	Consumable Supplies
College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 205L	\$52.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 285L	\$40.00	Lab/Studio Supplies/Equipment

College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 421B	\$135.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 428L	\$70.00	Consumable Supplies
College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 528L	\$70.00	Consumable Supplies
College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 546	\$75.00	Consumable Supplies
College of Agric and Life Sci	Veterinary Science & Microbiology	MIC 573	\$150.00	Lab/Studio Supplies/Equipment
College of Engineering	Mining & Geological Engineering	MNE 590	\$50.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 110	\$20.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 222	\$50.00	Consumable Supplies
College of Engineering	Materials Science & Engineering	MSE 223L	\$40.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 250	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 360L	\$30.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 447L	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 450	\$50.00	Consumable Supplies
College of Engineering	Materials Science & Engineering	MSE 471L	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 488	\$100.00	Equipment Refresh/Rental
College of Engineering	Materials Science & Engineering	MSE 526	\$100.00	Equipment Refresh/Rental
College of Engineering	Materials Science & Engineering	MSE 547L	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 550	\$50.00	Consumable Supplies
College of Engineering	Materials Science & Engineering	MSE 571L	\$100.00	Lab/Studio Supplies/Equipment
College of Engineering	Materials Science & Engineering	MSE 588	\$100.00	Equipment Refresh/Rental
College of Fine Arts	School of Music	MUS 101A	\$50.00	Equipment Refresh/Rental
College of Fine Arts	School of Music	MUS 101B	\$10.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Music	MUS 110A	\$50.00	Equipment Refresh/Rental

College of Fine Arts	School of Music	MUS 110B	\$50.00	Equipment Refresh/Rental
College of Fine Arts	School of Music	MUS 210A	\$50.00	Equipment Refresh/Rental
College of Fine Arts	School of Music	MUS 210B	\$50.00	Equipment Refresh/Rental
College of Fine Arts	School of Music	MUS 310A	\$50.00	Equipment Refresh/Rental
College of Fine Arts	School of Music	MUS 310B	\$10.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Music	MUS 493M	\$40.00	Student Teaching Support
College of Fine Arts	School of Music	MUSI 181	\$123.00	Private Instruction
College of Fine Arts	School of Music	MUSI 182	\$123.00	Private Instruction
College of Fine Arts	School of Music	MUSI 185	\$185.00	Private Instruction
College of Fine Arts	School of Music	MUSI 282	\$123.00	Private Instruction
College of Fine Arts	School of Music	MUSI 285	\$185.00	Private Instruction
College of Fine Arts	School of Music	MUSI 382	\$123.00	Private Instruction
College of Fine Arts	School of Music	MUSI 385	\$185.00	Private Instruction
College of Fine Arts	School of Music	MUSI 482	\$123.00	Private Instruction
College of Fine Arts	School of Music	MUSI 485	\$185.00	Private Instruction
College of Fine Arts	School of Music	MUSI 580	\$123.00	Private Instruction
College of Fine Arts	School of Music	MUSI 585	\$185.00	Private Instruction
College of Fine Arts	School of Music	MUSI 685	\$185.00	Private Instruction
College of Fine Arts	School of Music	MUSI 785	\$185.00	Private Instruction
College of Science	Department of Neuroscience	NROS 215	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Department of Neuroscience	NROS 415	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Nutritional Sciences and Wellness	NSC 120	\$32.00	Lab Studio Technical Support
College of Agric and Life Sci	School of Nutritional Sciences and Wellness	NSC 351L	\$77.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Nutritional Sciences and Wellness	NSC 358L	\$35.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Nutritional Sciences and Wellness	NSC 415L	\$35.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Nutritional Sciences and Wellness	NSC 515L	\$35.00	Lab/Studio Supplies/Equipment
James C Wyant Coll Optical Sci	College of Optical Sciences	OPTI 490	\$50.00	Lab/Studio Supplies/Equipment

James C Wyant Coll Optical Sci	College of Optical Sciences	OPTI 590	\$50.00	Lab/Studio Supplies/Equipment
Public Health, Col of	Community, Environment & Pol	PHPM 415	\$35.00	Special Exam/Test
Public Health, Col of	Community, Environment & Pol	PHPM 515	\$35.00	Special Exam/Test
College of Science	Physics	PHYS 141	\$85.00	Consumable Supplies
College of Science	Physics	PHYS 142	\$100.00	Consumable Supplies
College of Science	Physics	PHYS 161H	\$85.00	Consumable Supplies
College of Science	Physics	PHYS 162H	\$100.00	Consumable Supplies
College of Science	Physics	PHYS 181	\$85.00	Consumable Supplies
College of Science	Physics	PHYS 182	\$85.00	Consumable Supplies
College of Science	Physics	PHYS 241	\$85.00	Consumable Supplies
College of Science	Physics	PHYS 261H	\$85.00	Consumable Supplies
College of Science	Physics	PHYS 381	\$150.00	Lab/Studio Supplies/Equipment
College of Science	Physics	PHYS 382	\$150.00	Lab/Studio Supplies/Equipment
College of Science	Physics	PHYS 405	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Physics	PHYS 483	\$150.00	Lab/Studio Supplies/Equipment
College of Science	Physics	PHYS 505	\$100.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 457	\$50.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 483	\$50.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 516C	\$50.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 516D	\$50.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 516E	\$50.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 557	\$50.00	Lab/Studio Supplies/Equipment

Col Arch Plan & Landscape Arch	Planning	PLG 579	\$50.00	Lab/Studio Supplies/Equipment
Col Arch Plan & Landscape Arch	Planning	PLG 583	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Plant Pathology	PLP 285L	\$40.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Plant Pathology	PLP 428L	\$70.00	Consumable Supplies
College of Agric and Life Sci	Plant Pathology	PLP 528L	\$70.00	Consumable Supplies
College of Agric and Life Sci	Plant Pathology	PLP 546	\$75.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 120	\$32.00	Lab Studio Technical Support
College of Agric and Life Sci	School of Plant Science	PLS 217L	\$50.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 240	\$18.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 340L	\$60.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 397B	\$50.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 428L	\$70.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 479	\$50.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 528L	\$70.00	Consumable Supplies
College of Agric and Life Sci	School of Plant Science	PLS 573	\$150.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Plant Science	PLS 579	\$50.00	Consumable Supplies
College of Medicine - Tucson	Physiology, Graduate Level	PSIO 201	\$137.00	Lab/Studio Supplies/Equipment
College of Medicine - Tucson	Physiology, Graduate Level	PSIO 202	\$103.00	Lab/Studio Supplies/Equipment
College of Medicine - Tucson	Physiology, Graduate Level	PSIO 425	\$63.00	Lab/Studio Supplies/Equipment
College of Science	Planetary Sciences	PTYS 342	\$87.00	Field Trip
College of Science	Planetary Sciences	PTYS 526	\$100.00	Equipment Refresh/Rental
College of Science	Planetary Sciences	PTYS 554	\$195.00	Field Trip
College of Science	Planetary Sciences	PTYS 584	\$31.00	Field Trip
College of Science	Planetary Sciences	PTYS 590	\$150.00	Field Trip
College of Agric and Life Sci	Range Management	RAM 382	\$40.00	Field Trip
College of Agric and Life Sci	Range Management	RAM 446	\$70.00	Field Trip
College of Agric and Life Sci	Range Management	RAM 456A	\$75.00	Field Trip
College of Agric and Life Sci	Range Management	RAM 546	\$70.00	Field Trip

College of Agric and Life Sci	Range Management	RAM 556A	\$75.00	Field Trip
Graduate College	GIDP on Remote Sensing and Spatial Analysis	REM 490	\$50.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Remote Sensing and Spatial Analysis	REM 590	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 140	\$40.00	Equipment Refresh/Rental
College of Agric and Life Sci	Renewable Natural Resources	RNR 142	\$40.00	Equipment Refresh/Rental
College of Agric and Life Sci	Renewable Natural Resources	RNR 321	\$40.00	Field Trip
College of Agric and Life Sci	Renewable Natural Resources	RNR 322	\$350.00	Field Trip
College of Agric and Life Sci	Renewable Natural Resources	RNR 403	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 416A	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 416C	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 416D	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 416E	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 416F	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 417	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 419	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 420	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 422	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 429	\$50.00	Equipment Refresh/Rental
College of Agric and Life Sci	Renewable Natural Resources	RNR 473	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 483	\$50.00	Lab/Studio Supplies/Equipment

College of Agric and Life Sci	Renewable Natural Resources	RNR 490	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 503	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 506L	\$139.00	Field Trip
College of Agric and Life Sci	Renewable Natural Resources	RNR 516A	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 516C	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 516D	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 516E	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 516F	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 517	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 519	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 520	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 522	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 529	\$50.00	Equipment Refresh/Rental
College of Agric and Life Sci	Renewable Natural Resources	RNR 573	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 583	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 590	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 595C	\$42.00	Field Trip
College of Agric and Life Sci	Renewable Natural Resources	RNR 620	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Renewable Natural Resources	RNR 696Q	\$50.00	Lab/Studio Supplies/Equipment

Student Affrs & Enrl Mgmt	Vice President Student Affairs	SAS 100AX	\$91.00	Private Instruction
College of Social & Behav Sci	Social & Behavioral Sci Admin	SBS 200	\$25.00	Lab/Studio Supplies/Equipment
College of Education	Dept of Disability & Psychoeducational Studies	SERP 475	\$20.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 493	\$50.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 575	\$34.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 593	\$35.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 593B	\$10.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 594B	\$10.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 602	\$85.00	Special Exam/Test
College of Education	Dept of Disability & Psychoeducational Studies	SERP 674B	\$90.00	Special Exam/Test
College of Education	Dept of Disability & Psychoeducational Studies	SERP 677	\$23.00	Special Exam/Test
College of Education	Dept of Disability & Psychoeducational Studies	SERP 679	\$86.00	Special Exam/Test
College of Education	Dept of Disability & Psychoeducational Studies	SERP 693B	\$24.00	Student Teaching Support
College of Education	Dept of Disability & Psychoeducational Studies	SERP 694B	\$30.00	Student Teaching Support
College of Science	Speech Language & Hearing Sciences	SLHS 261	\$25.00	Equipment Refresh/Rental
College of Science	Speech Language & Hearing Sciences	SLHS 362	\$19.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 380	\$10.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 435	\$13.00	Special Exam/Test
College of Science	Speech Language & Hearing Sciences	SLHS 458	\$92.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 483R	\$46.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 512	\$30.00	Special Exam/Test
College of Science	Speech Language & Hearing Sciences	SLHS 535	\$13.00	Special Exam/Test
College of Science	Speech Language & Hearing Sciences	SLHS 558	\$92.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 581C	\$65.00	Consumable Supplies
College of Science	Speech Language & Hearing Sciences	SLHS 583R	\$46.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 587B	\$69.00	Lab/Studio Supplies/Equipment

College of Science	Speech Language & Hearing Sciences	SLHS 587G	\$58.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 588A	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 588B	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 588C	\$100.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 589R	\$50.00	Lab/Studio Supplies/Equipment
College of Science	Speech Language & Hearing Sciences	SLHS 795A	\$36.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Statistics	STAT 574G	\$50.00	Lab/Studio Supplies/Equipment
Graduate College	GIDP on Statistics	STAT 579	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 111	\$10.00	Consumable Supplies
College of Fine Arts	School of Theatre, Film and Television	TAR 116	\$10.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 197V	\$80.00	Accompanist
College of Fine Arts	School of Theatre, Film and Television	TAR 205A	\$80.00	Accompanist
College of Fine Arts	School of Theatre, Film and Television	TAR 401	\$25.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 402A	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 403	\$80.00	Accompanist
College of Fine Arts	School of Theatre, Film and Television	TAR 404	\$80.00	Accompanist
College of Fine Arts	School of Theatre, Film and Television	TAR 415	\$10.00	Consumable Supplies
College of Fine Arts	School of Theatre, Film and Television	TAR 416	\$12.00	Models for Art Classes
College of Fine Arts	School of Theatre, Film and Television	TAR 423	\$40.00	Consumable Supplies
College of Fine Arts	School of Theatre, Film and Television	TAR 427	\$20.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 428	\$25.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 433	\$40.00	Consumable Supplies

College of Fine Arts	School of Theatre, Film and Television	TAR 453	\$50.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 487V	\$40.00	Accompanist
College of Fine Arts	School of Theatre, Film and Television	TAR 501	\$25.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 516	\$12.00	Models for Art Classes
College of Fine Arts	School of Theatre, Film and Television	TAR 523	\$40.00	Consumable Supplies
College of Fine Arts	School of Theatre, Film and Television	TAR 527	\$20.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TAR 528	\$25.00	Lab/Studio Supplies/Equipment
College of Fine Arts	School of Theatre, Film and Television	TFTV 319	\$20.00	Consumable Supplies
College of Education	Teaching, Learning and Sociocultural Studies	TLS 308	\$20.00	Lab/Studio Supplies/Equipment
College of Education	Teaching, Learning and Sociocultural Studies	TLS 310	\$58.00	Special Exam/Test
College of Education	Teaching, Learning and Sociocultural Studies	TLS 352	\$40.00	Consumable Supplies
College of Education	Teaching, Learning and Sociocultural Studies	TLS 360	\$45.00	Lab/Studio Supplies/Equipment
College of Education	Teaching, Learning and Sociocultural Studies	TLS 493A	\$80.00	Student Teaching Support
College of Education	Teaching, Learning and Sociocultural Studies	TLS 493B	\$80.00	Student Teaching Support
College of Education	Teaching, Learning and Sociocultural Studies	TLS 493D	\$45.00	Student Teaching Support
College of Education	Teaching, Learning and Sociocultural Studies	TLS 493E	\$80.00	Student Teaching Support
College of Education	Teaching, Learning and Sociocultural Studies	TLS 593A	\$80.00	Student Teaching Support
College of Education	Teaching, Learning and Sociocultural Studies	TLS 593B	\$80.00	Student Teaching Support
College of Social & Behav Sci	Turkish	TURK 101	\$25.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Turkish	TURK 102	\$25.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Turkish	TURK 401	\$25.00	Lab/Studio Supplies/Equipment
College of Social & Behav Sci	Turkish	TURK 402	\$25.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 445	\$30.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 447	\$37.00	Field Trip

College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 455R	\$17.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 545	\$30.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 547	\$37.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 555R	\$17.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 575	\$25.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 582	\$64.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 583	\$142.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 584	\$50.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 585	\$255.00	Field Trip
College of Agric and Life Sci	School of Natural Resources and the Environment	WFSC 588	\$190.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 330	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Watershed Management	WSM 439A	\$85.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 460A	\$65.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 462	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Watershed Management	WSM 468	\$16.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 539A	\$85.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 560A	\$65.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 562	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Watershed Management	WSM 568	\$16.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 597J	\$48.00	Field Trip
College of Agric and Life Sci	Watershed Management	WSM 696M	\$50.00	Lab/Studio Supplies/Equipment
College of Agric and Life Sci	Watershed Management	WSM 696Q	\$50.00	Lab/Studio Supplies/Equipment

University: University of Arizona

 College/School: All Colleges

 Department: All Departments

 Program: All Programs
☐ Both

☐ Graduate

☒ Undergraduate Both

Choose One Option

Resident:

see below /year

Proposed Fee

 Effective Date: Fall 2024

(this field you may enter other option just by typing it in box)

Non-Resident:

see below /year

Proposed Fee

 Effective Date: Fall 2024

(this field you may enter other option just by typing it in box)

Other Applicable Fees in School/Program

Resident:

Non-Resident:

Applicable Differential Tuition:

0
0

Number of classes within the college with a fee:

0
0

Percent of classes within the college with a fee:

0%
0%

Purpose (Please provide a brief statement detailing the purpose of the tuition, including the anticipated expenditures of tuition revenue and benefits the tuition will provide students.)

The University of Arizona will simplify the undergraduate academic fee structure by bundling several academic fees into one single charge. This restructuring impacts existing Differential Tuition, Program Fees, and Course Fees, which will collapse into a single college fee amount. The college fee model will have the same configuration as tuition, which will be prorated by the credit hour enrolled. As with tuition, college fees will cap at 12 credit hours regardless of residency. This new structure eliminates the uncertainty of course fees and makes it easier for students and their families to plan for the cost of attendance.

The proposed College Fee model is as follows (annual rates, split in half for semester).

- College Fee Tier 1: Res \$550 & NR \$800
(College of Education, College of Humanities, James E. Rogers College of Law, R. Ken Coit College of Pharmacy, College of Social & Behavioral Sciences, & students with no major selected).
- College Fee Tier 2: Res \$900 & NR \$1,300
(College of Agriculture, Life, & Environmental Sciences, iSchool, College of Medicine-Tucson, Mel & Enid Zuckerman College of Public Health, & College of Science).
- College Fee Tier 3: Res \$1,300 & \$1,900
(College of Fine Arts & College of Nursing).
- College Fee Tier 4: Res \$1,800 & \$2,600
(College of Architecture, Planning, & Landscape Architecture, Eller College of Management, & College of Engineering).

Students at the James C. Wyant College of Optical Sciences are part of the College of Engineering and are subject to the same rate. Non-degree seeking students and students in the College of Applied Sciences and Technology will not be charged a college fee.

Justification (Please provide a brief statement on what the proposal is intended to pay for and how much of the costs will be covered by the incremental revenue)

College fee revenue will support the academic programs' instructional costs. These funds enable the colleges to offer high-quality instruction through specialized software, lab supplies, equipment, and other consumables. In addition, this revenue will fund a wide set of student services and support through academic advising, faculty and staff support, professional development opportunities, student travel, and more. The budget presented below details some expenditure examples; these are estimates and are subject to the needs of each college.

The University of Arizona will create a financial aid set-aside (FAS) fund from the college fee model to reduce the financial burden of this proposal on students eligible for need-based financial aid based on 14% of gross collections. See budget table for amount details.

The fee amount of \$1,224 was used as a weighted average in the budget table to provide reporting on the appropriate Total Revenue. Amounts per college will vary based on fees collected within the appropriate tiers

Student Consultation (Please describe the evidence, method and outcomes of student consultation)

Student consultation included participation from the executive officers of the Associated Students of the University of Arizona (ASUA), ASUA Near You, and the Graduate Professional Student Council (GPSC) representatives. The student governments at the University of Arizona campus attended the annual university fees meeting as members of the University Fees Committee. This committee reviews each fee proposal, considers the cost of attendance, and evaluates the benefits of all fees paid by students in support of their academic and extracurricular needs. In addition, the Office of Budget and Planning also held several meetings with each group's leadership teams to discuss tuition and fee changes and within the context of university budget and operations.

MARKET PRICING

Institution	Degree	Annual Price		
		Resident	Nonresident	Online
UA College Fee 1	Multiple Colleges	\$ 550	\$ 800	
UA College Fee 2	Multiple Colleges	900.00	1,300.00	
UA College Fee 3	Multiple Colleges	1,300.00	1,900.00	
UA College Fee 4	Multiple Colleges	1,800.00	2,600.00	
ASU College Fee 1	Multiple Colleges	0.00	0.00	
ASU College Fee 2	Multiple Colleges	230.00	380.00	
ASU College Fee 3	Multiple Colleges	810.00	1,390.00	
ASU College Fee 4	Multiple Colleges	1,110.00	1,910.00	
NAU College Fee 1	Multiple Colleges	416.00	624.00	
NAU College Fee 2	Multiple Colleges	624.00	936.00	
NAU College Fee 3	Multiple Colleges	1,040.00	1,560.00	

BUDGET

Financial Aid Set Aside (FSA) Amount: 14.0%

Proposed Annual Revenue

College Fees (This is an amount to show our calculated revenue)	\$	\$ 1,223.64
Number of Students	#	\$ 31,300
Total Revenue	=	38300000

Proposed Annual Expenditures

Financial Aid Set Aside	\$	\$ 5,362,000.00
Administrative Service Charge	\$	\$ 4,941,000.00
Ctr for Assessment, Teach, & Tech Support	\$	\$ 4,000,000.00
Personnel Services	\$	\$ 12,864,000.00
Benefits (ERE)	\$	\$ 6,336,000.00
Operational Expenses	\$	\$ 4,797,000.00
	\$	
	\$	
	\$	
Total College Costs	=	\$ 38,300,000.00

University: University of Arizona

College/School: W.A. Franke Honors College

Department: Honors College

Program: Honors Program Fee

☐ Both

☐ Graduate

☒ Undergraduate

Both

Choose One Option

Resident:

\$ 475

/semester

\$ 600

/semester

Effective Date: Fall

2024

Current Rate

Proposed Rate

(this field you may enter other option just by typing it in box)

Non-Resident:

\$ 475

/semester

\$ 600

/semester

Effective Date: Fall

2024

Current Rate

Proposed Rate

(this field you may enter other option just by typing it in box)

Program Fee History:

Most Recent Date & Change to fee (Date/Amount)

Resident:

Date Fee Established Fall

2010

and original amount \$ 250

Fall

2021

\$ 475

Most Recent Date & Change to fee (Date/Amount)

Non-Resident:

Date Fee Established Fall

2010

and original amount \$ 250

Fall

2021

\$ 475

Other Applicable Fees in School/Program

Resident:

Non-Resident:

Applicable differential tuition amount:

0

0

Number of classes within the program with a fee:

0

0

Percent of classes within the program with a fee:

0%

0%

Purpose (Please provide a brief statement detailing the purpose of the fee, including the anticipated expenditures of fee revenue and benefits the fee will provide students. Include an explanation of the additional benefits funded by the increase.)

All revenue generated by the Honors program fee directly benefits students within the program and college. The fee supports the hiring of academic advisors, student support staff, and faculty who provide the amazing enrichment opportunities that are the Franke Honors experience. From scholarship support to coordinating our well-known PATH mentoring program to teaching our small classes and guiding our students on experiential learning journeys, the fee provides the resources we need to create the top Honors experience in the country. The Franke Honors College offers two minors, Health and Human Values and Future Earth Resilience, and a new innovative dual degree program called the Bachelor of Creative Intelligence and Innovation. These programs require faculty and staff to deliver this experience. This fee empowers us to have the top educators in place required for our outstanding students. In addition, Franke has many scholarship opportunities available for Honors students ranging from tuition/fee-based to study abroad support to thesis and professional development. We could only deliver the world-class leading honors educational experience with this program fee.

Justification (Please provide a brief statement on what the proposal is intended to pay for and how much of the costs will be covered by the incremental revenue)

With an increase in the Honors program fee to \$600/semester, we anticipate additional revenue of \$1,000,000. We will set aside 14% of the program fee for need-based financial aid to allow access for those students who cannot afford the fee. This calculation is based on a census enrollment of 4,000 Franke Honors students in the fall and spring semesters. This additional revenue will be used to:

- Increase our current student support scholarships by 50%.
- Expand Honors course offerings in General Education and support our degree programs. To support this expansion, this increase will support hiring two full-time faculty in Franke Honors and provide additional contracting support of current UA faculty.
- Expand undergraduate research support, thesis support, and student grant program. We will need to hire an additional staff member to support this expansion.
- Grow the number of applicants and awardees of national competitive scholarships. Additional staff support will be needed to facilitate this.
- Additional student advisory support is needed with a growing student population and new degree programs like the Bachelor of Creative Intelligence and Innovation. We plan to hire an additional Honors academic advisor to support this growth.
- Expansion and growth of industry, community, and governmental partners. These partners will provide classroom content for the BCII program, paid and for-credit internship opportunities, and more pathways for employment for graduates.
- To better support the growth of our student body, we will increase the capacity of the marketing and communications team. Specifically, we will need additional support for our website management and internal communications with our student body.
- We have re-instituted the Honors Leadership Certificate program. We will need additional support to enhance this valuable program, which involves both classes and community engagement.
- Additional Honors student worker support with an emphasis on work-study.

It is important to note that we support more than 14% of students with fee scholarships through our foundation accounts. With the recent hiring of our new Development Officer (DO), we plan to increase this number through gifts. Our new DO has already impacted scholarship money for students, and with a recent significant gift, we will further support students in undergraduate research, creative inquiry, and exploration.

See budget table for amount details.

Student Consultation (Please describe the method and outcomes of student consultation)

To inform our students of the fee proposal and get feedback, we held a meeting with the Franke Forum. This student group of Franke Honors students has representatives from all of our crucial student stakeholders, which include PATH mentoring, Honors Ambassadors, Honors Student Council, Black Excellence Scholars, Nepantla (Honors Latinx students), Franke Honors Transfer Student group, Health and Human Values minor, Bachelor of Creative Intelligence and Innovation and other engaged Franke Honors students. Sixteen students attended the meeting, and during this meeting, we asked them what more they would want from the Franke Honors experience, how we could support their requests, and their feedback on our proposal to raise the fee by \$125/semester.

In our meeting and presentation, we were pleasantly surprised the students were most concerned about how a fee increase will impact our ability to recruit and maintain students from underrepresented populations, 1st generation students, and those with financial needs. Students showed enthusiasm for the ideas and programs we are proposing, fueled by the revenue generated from the fee increase. All 16 students supported the fee increase if the items specified in the student consultation were met. For instance, they asked that the college be transparent about how the fee revenue is spent. They also want to see how additional resources will impact their experiences directly and want a commitment that students who wish to be in Honors but cannot pay the fee due to financial reasons will be supported with fee scholarships. When we asked the students what opportunities or programs they wished Franke Honors would provide, they listed the following:

- More collaboration with the cultural resource centers.
- Support forming a committee for non-stem students - increase the drive for non-stem (Franke is primarily comprised of STEM students).
- Events and programming that better connect students to our Honors faculty.
- Upper-division Honors seminar course that exposes students to various research topics.
- Formation and support of a journal club led by faculty and students.
- Headshots for students for their professional profiles.
- Offering of on-campus graduate school fairs.
- Better engagement with Franke Honors alumni.
- More social events for students to connect.
- More support for undergraduate research. With the additional staffing and resources from the fee increase, we will not only be able to deliver on all these requests but continue to support the growth and expansion of our new degree programs and better support students doing undergraduate research and creative inquiry.

MARKET PRICING

Institution	Degree	Annual Price		
		Resident	Nonresident	Online
University of Oregon	Clark Honors College	\$ 3,030	\$ 3,030	
Arizona State	Barrett Honors College	2,000.00	2,000.00	
University of Arizona	W.A. Franke Honors College	1,200.00	1,200.00	
Northern Arizona University	Honors College	700.00	700.00	
University of Florida	UF Honors	0.00	0.00	
University of Minnesota-Twin Cities	University Honors Program	0.00	0.00	
University of Washington- Seattle	University of Washington Honors Program	0.00	0.00	

BUDGET

Financial Aid Set Aside (FSA) Amount: 14.0%

Proposed Annual Revenue

Program Fee Amount	\$	\$ 1,200.00
Number of Students	#	\$ 4,000
Total Revenue	=	\$ 4,800,000.00

Proposed Annual Expenditures

Financial Aid Set Aside	\$	\$ 672,000.00
Administrative Service Charge	\$	\$ 619,200.00
Salaries/ Wages (with ERE)	\$	\$ 3,164,800.00
Operating Expenses/ Travel Extra Curricular	\$	\$ 144,000.00
Student Support (Scholarships)	\$	\$ 200,000.00
	\$	
	\$	
	\$	
	\$	
Total Program Costs	=	\$ 4,800,000.00

University: University of Arizona

College/School: College of Nursing

Department: Nursing

Program: Master of Science in Nursing - Entry to the Profession

☐ Both ☒ Graduate ☐ Undergraduate

Resident: \$ 48,000 /Program \$ 5,000 /term — Effective Date: Fall 2024
Current Rate Proposed Rate (this field you may enter other option just by typing it in box)

Non-Resident: \$ 68,000 /Program \$ 5,000 /term Effective Date: Fall 2024
Current Rate Proposed Rate (this field you may enter other option just by typing it in box)

Program Fee History: Most Recent Date & Change to fee (Date/Amount)
Resident: Date Fee Established Fall 2017 and original amount \$ 44,000 Fall 2022 \$ 48,000
Non-Resident: Date Fee Established Fall 2017 and original amount \$ 53,000 Fall 2022 \$ 68,000

Other Applicable Fees in School/Program	Resident:	Non-Resident:
Applicable differential tuition amount:	<u>0</u>	<u>0</u>
Number of classes within the program with a fee:	<u>0</u>	<u>0</u>
Percent of classes within the program with a fee:	<u>0%</u>	<u>0%</u>

Purpose (Please provide a brief statement detailing the purpose of the fee, including the anticipated expenditures of fee revenue and benefits the fee will provide students. Include an explanation of the additional benefits funded by the increase.)

ABOR previously approved this fee as a fixed fee rate, which required the program to manipulate the balance of tuition and program fees each semester to achieve the total cost marketed to students. With the tuition and fees simplification process, we propose switching from the current fixed rate to a Program Fee + Tuition model, consistent with most other graduate programs on campus. This proposal results in no change in total cost to the students.

All program fee revenues will be used to cover the costs of delivering this program: outstanding faculty and staff, quality clinical training, enhanced simulation learning, and other operational expenses, as detailed in the budget table below.

Justification (Please provide a brief statement on what the proposal is intended to pay for and how much of the costs will be covered by the incremental revenue)

All program fee revenues will be used to cover the costs of delivering this program. Personnel costs include, but are not limited to, teaching faculty and support staff. The support staff include academic advisors, clinical placement staff, and simulation lab staff, who support simulation training and manage supplies and equipment needs for the program.

Operating expenses include, but are not limited to, clinical rotation costs such as those required for contracting, software tracking, and accreditation needs associated with clinical sites/hospitals used in training.

Per ABOR policy, 14% of the fee gross revenue will be allocated to financial aid set-aside (FAS) to support eligible students affected by the fee.

This program is a 4 semester program, generating \$15,000 per fiscal year (\$20,000 program fee total over the life of the program). See budget table for amount details.

Student Consultation (Please describe the method and outcomes of student consultation)

This change represents a change in the structured charges within the student billing system and does not result in a change in total revenue or total cost to the students. Executive officers of the Associated Students of the University of Arizona (ASUA), ASUA Near You, and the Graduate & Professional Student Council (GPSC) attended the annual university fees meeting as members of the University Fees Committee. This committee reviews each proposal, considers the cost of attendance, and ensures the benefit to the students paying the fee.

MARKET PRICING

Institution	Degree	Annual Price		
		Resident	Nonresident	Online
Arizona State University	Master of Science Entry into Nursing Practice	\$ 45,270	\$ 74,830	
The University of Arizona	Master of Science in Nursing - Entry to the Profession	48,000.00	68,000.00	
University of California, Los Angeles	Master's Entry Clinical Nurse	58,916.00	83,406.00	
University of California, San Francisco	Master's Entry Program in Nursing	91,740.00	128,475.00	
Note: above listed numbers are total program tuitions.				

BUDGET

Financial Aid Set Aside (FSA) Amount: 14.0%

Proposed Annual Revenue

Program Fee Amount/Fiscal Year	\$	\$ 15,000.00
Number of Students	#	\$ 100
Total Revenue	=	\$ 1,500,000.00

Proposed Annual Expenditures

Financial Aid Set Aside	\$	\$ 210,000.00
Administrative Service Charge	\$	\$ 193,500.00
Institutional and advising personnel	\$	\$ 712,725.00
Support staff expense	\$	\$ 164,475.00
Operating expenses	\$	\$ 219,300.00
	\$	
	\$	
	\$	
	\$	
Total Program Costs	=	\$ 1,500,000.00

University: University of Arizona



College/School: Mel & Enid Zuckerman College of Public Health

Department: College of Public Health

Program: MD-MPH Tucson Campus

☐ Both

☒ Graduate

☐ Undergraduate

Resident:

\$ 750

/semester

Proposed Fee

Effective Date: Fall

2024

(this field you may enter other option just by typing it in box)

Non-Resident:

\$ 750

/semester

Proposed Fee

Effective Date: Fall

2024

(this field you may enter other option just by typing it in box)

Other Applicable Fees in School/Program

Resident:

Non-Resident:

Applicable Differential Tuition:

0

0

Number of classes within the program with a fee:

0

0

Percent of classes within the program with a fee:

0%

0%

Purpose (Please provide a brief statement detailing the purpose of the tuition, including the anticipated expenditures of tuition revenue and benefits the tuition will provide students.)

This fee request is based on an existing fee schedule established in 2011 for MD-MPH (Phoenix Campus). COM-Phoenix MD students do not pay additional tuition to MEZCOPH to complete the 42 credits required for the Master of Public Health (MPH) degree while attending their consecutive 4-year enrollment in medical school. A program fee is the only additional cost to obtain the second degree. Historically, the MD-MPH (Tucson Campus) had a five-year program with one year to register as a regular non-MD graduate student to complete the MPH requirements. The cost of this program structure was higher than the Phoenix program. Therefore, very few students have enrolled in this dual degree program. The Tucson program is now structured the same as the MD-MPH Phoenix model. Students will have access to cost-effective training and education in the core public health competencies and will graduate as more effective providers and physician leaders. Dual MD-MPH providers are more in tune with access barriers and will be more effective at advocating for their patients and navigating health disparities. The development of this dual degree pathway for the Tucson campus and implementation of the proposed program fee will provide an accessible opportunity for additional education for our students. It will make them more competent providers and healthcare leaders in Arizona.

The MD students on both campuses will enter MD-MPH status in year two if they enroll in the dual degree program. MEZCOPH is requesting the same fee structure be applied to medical students in both Tucson and Phoenix. The proposed program fee will be \$750/semester for six semesters, totaling \$4,500 per MPH student.

Justification (Please provide a brief statement on what the proposal is intended to pay for and how much of the costs will be covered by the incremental revenue)

This fee proposal is to set the same fee structure for MD-MPH students on both the Tucson and Phoenix campuses. Setting the same fee structure will ensure consistent and equitable treatment for students in MD-MPH programs. Tuition paid by MD students are not split between colleges, so the program fee is the only revenue to MEZCOPH in offering an MPH degree to MD students.

Implementing the proposed program fee will provide funding for additional instructors, operational expenses, the program director, academic advisors, and other support staff. Also, per ABOR policy, 14% of the fee gross revenue will be allocated to financial aid set-aside (FAS) to support eligible students affected by the fee. See budget table for amount details.

Student Consultation (Please describe the method and outcomes of student consultation)

Student input and consultation was conducted using an email-distributed survey. The college gathered feedback from the eight medical students interested in pursuing the MD-MPH dual degree. After a waiting period of six days, we recorded a response rate of 87.5% (seven student responses). 100% of the student responses indicated that the proposed Program Fee was very reasonable, compared to other MD-MPH dual degree programs, and that the proposed program fee was reasonable to support the teaching, advising, and administrative efforts needed to support the dual degree program. Comments solicited from the survey indicated that students supported the proposed fee structure. One student commented, "This fee structure is relatively accessible for students looking to pursue a dual degree without incurring too much additional debt on top of the cost of an MD program. This fee structure is thus very reasonable and enticing for students like myself who felt the cost would be the primary limiting factor rather than the time commitment." Another echoed this sentiment: "The current proposed fee structure isn't prohibitive as it stands, but I would likely not be able to pursue the dual degree program if it were to follow the same fee schedule as some of the other dual degree programs listed."

The executive officers of the Associated Students of the University of Arizona (ASUA) and the Graduate & Professional Student Council (GPSC), including a Near You representative, attended the annual university fees meeting as members of the University Fees Committee. This committee reviews each proposal, considers the cost of attendance, and ensures the benefit to the students paying the fee.

MARKET PRICING

Institution	Degree	Annual Price		
		Resident	Nonresident	Online
University of Arizona (Fall 23 Rate)	MD-MPH (4 Yr)	\$ 39,288	\$ 57,460	
Texas A&M	MD-MPH (5 Yr)	33,300.00	53,788.00	
University of Florida	MD-MPH (5 Yr)	30,581.00	65,368.00	
University of Maryland	MD-MPH (5 Yr)	44,820.00	83,025.00	
UCLA	MD-MPH (5 Yr)	35,872.00	52,808.00	
Tufts University	MD-MPH (4 Yr)	82,708.00	82,708.00	
University of Miami	MD-MPH (4 Yr)	58,236.00	58,236.00	

BUDGET

Financial Aid Set Aside (FSA) Amount: 14.0%

Proposed Annual Revenue

Program Fee	\$	\$ 1,500.00
Number of Students	#	\$ 45
Total Revenue	=	\$ 67,500.00

Proposed Annual Expenditures

Financial Aid Set Aside	\$	\$ 9,450.00
Administrative Service Charge	\$	\$ 8,707.50
Program Director	\$	\$ 13,200.00
Additional Instructors	\$	\$ 10,560.00
Support Staff Effort	\$	\$ 8,580.00
Additional Advisor Effort	\$	\$ 8,580.00
Operational Expense	\$	\$ 8,422.50
	\$	
	\$	
Total Program Costs	=	\$ 67,500.00

EXECUTIVE SUMMARY

Item Name: **Potential Legislation: Statutory Tuition Waiver Programs**

☒ Action Item

Requested Action: The board office asks the committee to review and forward to the board a recommendation on potential legislation related to statutorily mandated tuition waiver programs.

Background/History of Previous Board Action

Background

During the 2022 session, the Legislature established the Spouses of Military Veterans Scholarship program requiring a full tuition and fee scholarship for any qualifying spouse of a military veteran at an Arizona public university or college. To fund the program, the Legislature appropriated \$10 million in ongoing and non-lapsing funds. The program is administered by the ABOR office.

The program became effective in the Fall of 2022 and the first scholarships offered for the Winter 2023 semester. To date, utilization is low. During Winter 2023, staff authorized 42 scholarships across the three universities and participating community colleges at a total cost of \$167,000. Early reports from the universities suggest expenditures of approximately \$300,000 in FY 2024.

In addition to the Military Spouses program, the legislature has implemented a number of additional tuition scholarship programs. During the 2023 session, the legislature added a new program for spouses and dependents of Law Enforcement officers. The following table lists the current ABOR managed statutory programs.

Contact Information:

John Arnold, ABOR

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602-229-2500

EXECUTIVE SUMMARY

Statutorily Required Waiver Program	Eligible Institutions	Legislative Funding	Other Requirements
Children and spouses of peace officers, firefighters, paramedics, military service personnel, correctional officers and AZ National Guard members killed in the line of duty.	Arizona Public University or Community College	None	
Qualifying members of the AZ National Guard, including Purple Heart recipients	Arizona Public University or Community College	None	
Arizona military service personnel who receive a Purple Heart citation	Arizona Public University or Community College	None	
Students in the foster care system at the age of 14.	Arizona Public University or Community College	None	-Has total personal assets less than \$10,000. -Annually completes 30 hours of public service.
Dependents of Public Safety officers.	Any degree or certificate granting institution in the state	\$2mm one-time	Available to Non-Residents
Spouses of Military Veterans	Arizona Public University or Community College	\$10mm per year	

Excluding the new Spouses of Military Veterans and the Dependents of Public Safety officers, the cost to the universities in foregone tuition and fees of the waiver programs is approximately \$1.2 million per year.

Discussion

As part of the establishment of the Military Spouses Scholarship, the legislature also established the Military Spouses Scholarship Fund. This fund receives an annual appropriation of \$10 million to support the scholarship program. Staff proposes seeking legislation to expand the uses of this fund to cover the other statutory waiver programs allocated in a waterfall format. The legislation would also seek to make the Dependents of Public Safety Officers permanent (currently in session law through FY 2027) and reform the foster care waiver by removing the asset test.

EXECUTIVE SUMMARY

Staff proposes allocating any remaining funds in the waterfall for the Arizona Promise Program.

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EXECUTIVE SUMMARY

Item name: **Proposed Board Adoption of ABOR Policy 4-406 “Spouses and Dependents of Law Enforcement Officers Tuition Scholarship” (First Reading)**

☒ Action item

Requested Action: The board office asks the committee to review and forward to the board on first reading the proposed adoption of ABOR Policy 4-406 “Spouses and Dependents of Law Enforcement Officers Tuition Scholarship”, as described in this summary.

Background/History of Previous Board Action

During this past legislative session as part of the Higher Education Budget Reconciliation Bill (BRB) (2023, Fifty-Sixth Legislature, First Regular Session, Chapter 140, Section 6), the Legislature established the Spouses and Dependents of Law Enforcement Officers Tuition Scholarship.

The legislature appropriated \$2,000,000 for the scholarship.

The general effective date for this past session is October 30, 2023

Discussion

The Spouses and Dependents of Law Enforcement Officers Tuition Scholarship Fund provides scholarships through FY 2026-27, for spouses and dependent children under the age of 27. It provides for a tuition and fees scholarship for an eligible student pursuing a degree through a career and technical education program, community college, university, or a private postsecondary educational institution. Spouses and dependents of law enforcement officers and correctional officers are eligible to apply under rules set by the board.

This Scholarship Program creates a first come, first served scholarship, through fiscal year 2026-2027, subject to available funding. The scholarship administration will begin in fall 2024.

Once the policy is approved the board office will work with eligible institutions to get agreements in place to provide this scholarship to students beginning in fall 2024. The proposed policy is included in this executive summary below.

Contact Information:

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Samantha Blevins, ABOR

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602-229-2552
602-229-2535

EXECUTIVE SUMMARY

Statutory/policy requirements

2023, Fifty-Sixth Legislature, First Regular Session, Chapter 140, Section 6.

4-406 Spouses and Dependents of Law Enforcement Officers Tuition Scholarship

- A. The Executive Director of the Board shall administer the Spouses and Dependents of Law Enforcement Officers Tuition Scholarship ("Scholarship") beginning in the Fall of 2024 through fiscal years 2026-2027 from the Spouses and Dependents of Law Enforcement Officers Tuition Scholarship Fund ("Fund").
 - a. This Scholarship is a first come, first served scholarship subject to available funding. If there are insufficient monies in the Scholarship Fund, the Executive Director of the Board may not award a tuition scholarship to an Eligible Student.
 - b. This Scholarship is limited to not more than four academic years or eight semesters in any one program leading towards a career technical education district program certificate or license, a private vocational program as defined in A.R.S. § 32-3001, an associate degree, or a baccalaureate degree.
 - c. The Executive Director of the Board shall verify student eligibility before awarding a Scholarship. A decision of the Executive Director of the Board as to the administration of the Scholarship is final.
- B. Student Eligibility: To be eligible for the scholarship, a student must:
 - a. Be either:
 - i. The current spouse of a law enforcement officer; or
 - ii. A dependent of a law enforcement officer who is under twenty-seven years old;
 - b. Enroll in a Participating Institution in a program that will award a career technical education district program certificate or license, a private vocational program as defined in A.R.S. § 32-3001, an associate degree, or a baccalaureate degree; and

EXECUTIVE SUMMARY

- c. Annually complete an application for the Scholarship and provide sufficient documentation as requested by the Executive Director of the Board or designee.

C. Amount of Scholarship

- a. For Eligible Students attending a university, community college or career technical education district, this Scholarship amount is equal to the amount of tuition and mandatory fees charged by that Participating Institution, minus other public and private gifts and aid awarded to that Eligible Student.
- b. For Eligible Students attending a private postsecondary educational institution, this Scholarship may not exceed the remainder of the average resident tuition and mandatory fees charged by universities under the jurisdiction of the Board, minus other public and private gifts and aid awarded to that Eligible Student.
- c. This Scholarship award amount will be calculated one time, and after that initial calculation, the Scholarship amount will not be recalculated, unless it is to benefit the student or otherwise required by Title IV of the Higher Education Act of 1965.

D. Scholarship Application Requirements: An Eligible Student must apply annually and provide sufficient documentation of the following to the Executive Director of the Board or designee:

- a. Enrollment and/or admission to a Participating Institution;
- b. Proof of completed FAFSA application;
- c. Copy of Law Enforcement Officer's Commission Card as applicable;
- d. Current Employment Verification Letter from Employer; and

EXECUTIVE SUMMARY

- e. Marriage Certificate (Spouse) or Birth Certificate or applicable court order (Dependent).

E. Participating Institutions must comply with the following:

- a. Sign an agreement with the Board; and
- b. Provide data and records as requested by the Executive Director of the Board or designee.

F. Definitions

- a. "Fees" are "Mandatory Fees" as defined in Board Policy 4-101(H).
- b. "Law Enforcement Officer" is an individual who is currently employed as either:
 - i. A peace officer as defined in A.R.S. § 15-1808(E)(4); or
 - ii. A correctional officer as defined in A.R.S. § 15-1808(E)(1).
- c. A "Participating Institution" is one of the following institutions who have executed an agreement with the Board to administer this scholarship according to applicable law and policy:
 - i. A University under the Board's jurisdiction;
 - ii. A community college as defined in A.R.S. § 15-1401;
 - iii. A career technical education program that is offered to adults in Arizona or an associate degree program offered by a career technical education district pursuant to A.R.S. § 15-398; or
 - iv. A private postsecondary educational institution in Arizona that is licensed pursuant to title 32, chapter 30, article 2 of the Arizona Revised Statutes.

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EXECUTIVE SUMMARY

Item Name: **Review of Northern Arizona University's Campus Master Plan**

☒ Action Item

Requested Action: Northern Arizona University (NAU) asks the committee to review and recommend forwarding to the board for approval its Campus Master Plan, as described in this executive summary.

Background/History of Previous Board Action

- ABOR policy requires the universities to develop master plans to guide development on each campus of Arizona's three state universities, as phase 1 of a 6-phase capital development process.
- The board last approved the University's Campus Master Plan in 2010.
- The Campus Master Plan is the principal planning document for the physical campuses of NAU. It defines and sets the direction for the ongoing development of the campus environment that supports the mission, core values, and heritage of the institution.

Discussion

- The proposed NAU Campus Master Plan will serve as the framework for the physical campus manifestation of the NAU Strategic Plan, *NAU 2025 – Elevating Excellence*. Any capital projects from this master plan will be submitted to the board for approval under separate actions and processes.
- Planning is an ongoing process; therefore, a flexible framework must be in place that can respond to current and future needs. While the goals, principles, and values of the Master Plan may remain consistent over time, the physical implementation of these will need to evolve to meet unanticipated changes. The Master Plan is developed with the intent to be adaptable to the changing needs of the institution.
- Engagement was at the forefront of this plan with over 5,000 total participants throughout a variety of focus groups, open houses, surveys, and public web comments.
- The drivers of the plan are:

Contact Information:

Bjorn Flugstad, NAU

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928-523-4240

EXECUTIVE SUMMARY

- A Student-Centered Plan: NAU is a hub for learning, discovery, innovation, and societal change. The Plan seeks to adapt the campus environment to meet student needs of the future. The Plan also focuses on supporting all members of our diverse student body, so they feel welcomed, supported, comforted, and safe. The NAU campus of the future will further reflect and enhance inclusiveness.
 - Resource Optimization: Presently, funding for campus physical growth is limited, but the need for higher education is greater than ever. Therefore, the Plan's focus is less about physical growth and more about optimizing the existing campus over the next decade. The Plan includes critical short-term needs that center around deferred maintenance and student success, as well as minimizing impacts on natural resources through carbon reduction as part of the Climate Action Plan.
 - Visionary Framework: This Plan sets a high-level vision for long-term development on the campus over the next decade and beyond. It balances aspirational thinking with a realistic understanding of constraints.
- Key Elements of the plan include:
 - Sense of Place
 - Student-centered Planning
 - Equitable Placemaking
 - Integration of Past Planning
 - Post Pandemic Planning
 - Connected Campus: Smart Technology Campus Elements
 - Systems Thinking: Infrastructure, Circulation, Open Space
 - Statewide Locations
 - Asset Management and Implementation
 - Carbon Neutrality
 - Community Dynamics
- Identified Phase One projects for the initial five years include the following which amount to an estimated net change in gross square footage of 366,608:
 - Milton Property Demolition
 - Indigenous Welcome Signage
 - Milton Edge Open Space
 - Peterson Hall Demolition
 - Interdisciplinary Science and Academic Complex (ISAAC) (New construction)
 - Bury Hall - Swing Space
 - Beaver Street School Renovation
 - Huffer Lane Facility Demolition
 - Social and Behavioral Sciences (New construction)
 - Institute of Human Development Renovation

EXECUTIVE SUMMARY

- E-W Connection - State Trust Land to South Quad
- South Quad Improvements
- University Union Fieldhouse, Dining Services, Food Court and Student Services Renovations
- East West Pedway Connection - Cline to Health and Learning Center
- Cline Library Renovation
- Cline Library Parking (400 spaces) (New construction)
- South Campus Student Housing (New construction)
- South Community + Wellness (New construction)
- South Campus Resident Parking Structure (345 spaces) (New construction)
- Adel Mathematics Renovation
- Gammage Renovation
- Student Academic Services Renovation
- J. Lawrence Walkup Skydome Renovation
- DuBois Ballroom Renovation
- Pedway Landscape Improvements
- McConnell Drive Improvements
- I-17 Campus Edge Gateway Signage + Landscaping
- Nursing Replacement Building (New construction)
- Native American Cultural Center Addition
- Physical Sciences Building Renovation
- Babbitt Academic Annex Demolition
- Interconnect North and South Heating Systems
- Conversion of South Campus Plant to Low-Temperature Hot Water
- Conversion of buildings from local heating systems to a centralized heating system
- Deep Energy Retrofits by building
- Electrify On-Campus Commercial Kitchens

Statutory/Policy Requirements

- ABOR Policy 7-102 requires that Master Plans be brought to the committee for review and to the board for approval.

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NORTHERN ARIZONA UNIVERSITY

COMPREHENSIVE SUSTAINABLE SMART CAMPUS MASTER PLAN

NAU

OCTOBER 2023



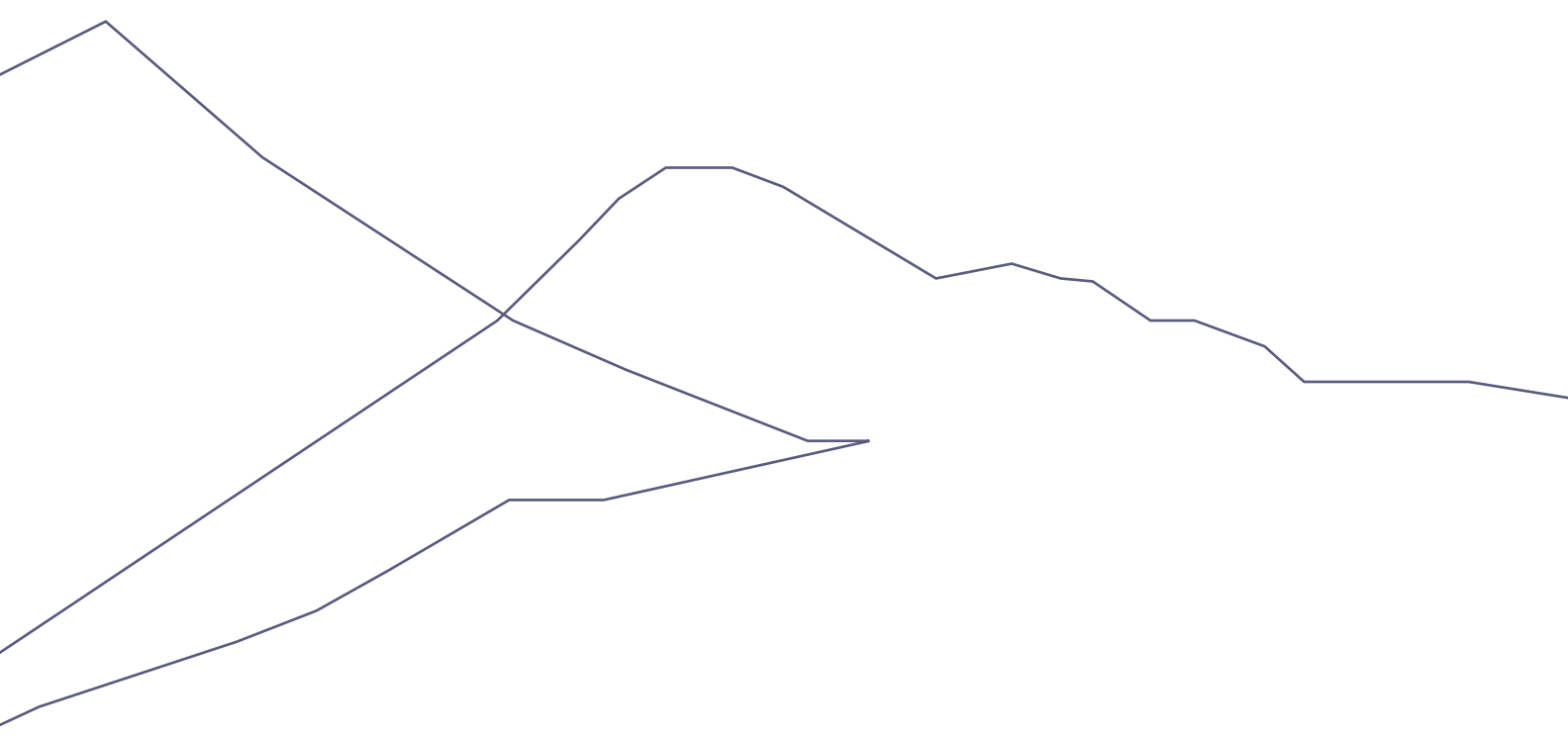
CONSULTANT TEAM

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Northern Arizona University

COMPREHENSIVE SUSTAINABLE SMART CAMPUS MASTER PLAN



Message from Leadership



I am pleased to invite you to explore Northern Arizona University's Sustainable Smart Campus Master Plan, a visionary roadmap for development that sets forth the pathway for change that will transform our campus over the next 10 years. This comprehensive plan sets forth guiding principles for the development of facilities and infrastructure on our campus and represents a collective effort and our shared vision for a campus that not only fosters academic excellence but also nurtures an inclusive and sustainable community.

This Master Plan follows the adoption of *NAU 2025 – Elevating Excellence*, NAU's updated Strategic Plan, aligning our articulated institutional mission and vision with how we plan, develop, and utilize our physical and technological infrastructure and campus real estate. The higher education landscape has evolved significantly in the past decade since the 2010 Master Plan. Capitalizing on this time of change, the Master Plan comes at a pivotal moment in NAU's history as we, like so many others in the higher education community, face formational challenges and opportunities on many fronts.

A hallmark of this Master Plan is the continuation of our long-standing dedication to fostering a vibrant, inclusive and caring community. Our spaces and places will reflect the diverse tapestry that makes our NAU community so extraordinary, including a focus on NAU's Indigenous Populations. Physical spaces play an integral role in welcoming students and employees and instilling a sense of belonging and pride in each Lumberjack.

Interdisciplinarity is the heart of our academic and research missions, and our Master Plan reflects this ethos. By laying the foundation for state-of-the-art academic facilities, collaborative spaces, and cutting-edge research spaces we not only encourage partnership, but also empower our students and faculty to tackle society's most complex challenges head-on through research and service to the community.

Furthermore, the enhancements to campus infrastructure will embrace technology to ensure that our facilities are accessible, safe, comfortable, and conducive to learning and working. From the modernization and replacement of several academic buildings to address programmatic and deferred maintenance needs, to expanded housing and recreational facilities, and enhanced community access, we are committed to providing an environment that supports the holistic development of every Lumberjack.

And finally, as the title of this process implies, a cornerstone of this Master Plan is our commitment to sustainability and environmental stewardship. In an era defined by pressing global challenges, Northern Arizona University is particularly well positioned to lead by example. Our campus will be a living laboratory, showcasing innovative solutions for a more sustainable future. Significant infrastructure investments, energy-efficient building retrofits and automation, and the expansion of native landscaping underscore our commitment to environmental consciousness will be evident in every corner of our campus.

As we embark on this exciting journey, I want to express my deepest gratitude to all who have contributed to this endeavor. Together, we are shaping a future where Northern Arizona University stands as a beacon of knowledge, a force for positive change, and a source of inspiration for generations of Lumberjacks to come.

DR. JOSÉ LUIS CRUZ RIVERA
PRESIDENT
NORTHERN ARIZONA UNIVERSITY

SPECIAL THANKS TO:

PRESIDENT'S CABINET

Dr. José Luis Cruz Rivera, President

Anika Olsen, Vice President of Enrollment Management

Ann Marie Chischilly, Vice President of Native American Initiatives

Bjorn Flugstad, Senior Vice President for University Operations and Chief Financial Officer

Brian Register, Chief of Staff

Christy Farley, Senior Vice President for Engagement and Public Affairs

Harlan Teller, Chief Marketing Officer

Jason Wilder, Vice President of Research

Jonathan S. Gagliardi, Vice President of Economic Mobility and Social Impact

Josh Mackey, Vice President & Chief Human Resource Officer

Julie Mueller, Chief Economic Advisor to the President

Karen Pugliesi, Executive Vice President and University Provost

Katy Yanez, Vice President of Government Affairs

Kimberly Ott, Associate Vice President of Communications

Laura Jones, Chief Data Officer

Laurie Dickson, Vice President for University Strategy and Senior Associate to the President

Margot Saltonstall, Vice President of Student Affairs

Michelle Parker, Vice President of Legal Affairs & General Counsel

Mike Marlow, Vice President of Intercollegiate Athletics

Nick Lobejko, Vice President of Advancement & Foundation; CEO NAU Foundation

Steven Burrell, Vice President of Technology and Chief Information Officer

STEERING COMMITTEE

Bjorn Flugstad, Senior Vice President for University Operations and Chief Financial Officer

Stephanie Bauer, Associate Vice President of Facilities & Maintenance

Andrew Iacona, Facilities Senior Project Manager

Abraham Henn, NAU Office of Sustainability Manager

Alicia Stewart Voytek, Associate Vice President of Campus Operations

Ann Marie Chischilly, Vice President of Native American Initiatives

Brendan Trachsel, 2022 Student Body President

Brian Register, Chief of Staff

Christopher Boyer, Dean, College of Arts and Letters Professor of History

Christy Farley, Senior Vice President for Engagement and Public Affairs

Cynthia Childrey, Dean and University Librarian

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Gina Kaiser Vance, Associate Vice Provost, NAU Online

Jason Wilder, Vice President of Research

John Georgas, Senior Vice Provost for Academic Operations. Professor (SICCS)

Josh Mackey, Vice President & Chief Human Resources Officer

Lynn Jones, Associate Dean for Personnel and Graduate Programs, College of Social and Behavioral Sciences. Professor (CCJ)

Matt Howdeshell, Senior Associate Athletic Director/ Administration and Capital Projects

Megan Gavin, Dean of Students

Miriam Espinoza, Assistant Clinical Professor, School of Nursing

Pamela Jo Heinonen, Associate Vice President, Human Resources

Phoenix Eskridge-Aldama, 2023 President of Graduate Student Government

Rebecca Seeger, 2022 President of Graduate Student Government

Steven Burrell, Vice President of Technology and Chief Information Officer

TC Eberly, Associate Vice President of Campus Operations, Campus Services and Activities

Valerie Elaine Barret, Manager of Planning and Space Management

About Northern Arizona University

With roots as a teachers college, NAU is committed to building a better tomorrow through education. Over 28,000 students attend the university's eight academic colleges whose programs of study enrich lives and create opportunities in Arizona and beyond.

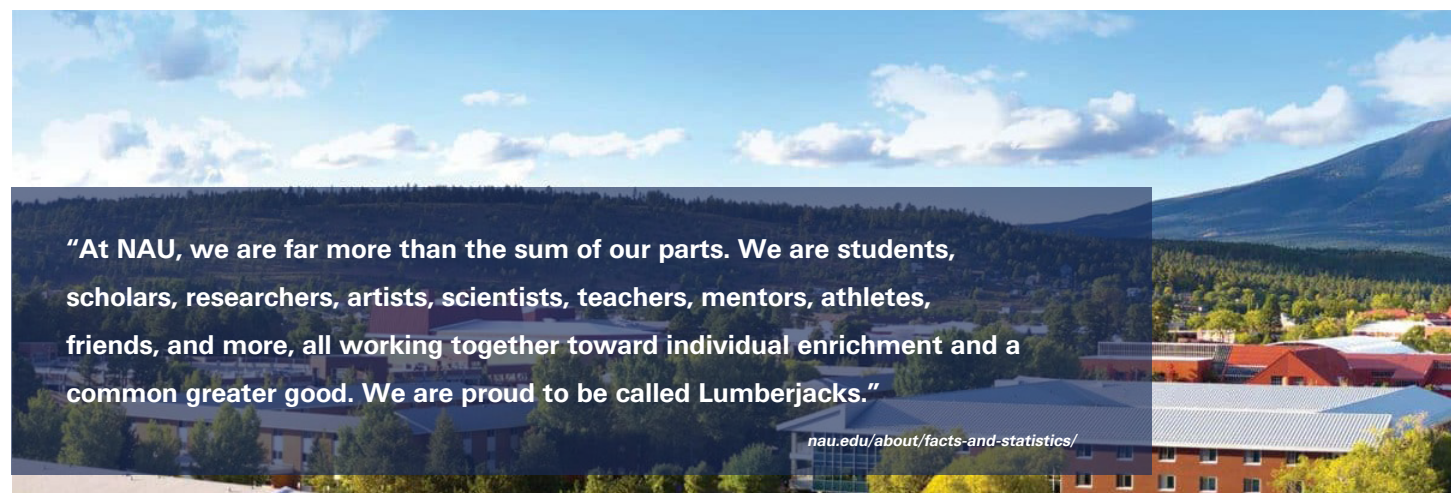
The Mountain Campus in Flagstaff has historically been the focal point of the university and its flagship campus. The Flagstaff campus is over 600 acres with over 6.8 million square feet in more than 100 buildings. NAU also has over twenty locations across the State of Arizona where over a third of Northern Arizona University's students are enrolled. The university continues to expand statewide outreach programs and distance learning, while the Flagstaff campus enrollment is assumed to remain at current levels.

The Northern Arizona University Mountain Campus is located in an ecologically diverse and sensitive area. Defined by forests, mountains, and grassy plains, the campus sits adjacent to downtown Flagstaff. It is surrounded by the Coconino National Forest, with other National Parks such as Walnut Canyon, Sunset Crater, Wupatki, and Grand Canyon all located within a short drive. Outdoor recreation is extremely popular among students, with many looking for open spaces on campus to draw inspiration from the adjacent diverse ecosystems. Many students chose to attend NAU for the outdoor element, climate, and landscape that Flagstaff provides.

Indigenous Nations such as the Yavapai, Hopi, Navajo, and Apache, and their ancestors have lived in the surrounding area for thousands of years. Flagstaff grew quickly in the late 1800s thanks to its abundant natural resources and strong ranching and railroad industries. This unique blend of people and history contributes to the cultural landscape today.

LAND ACKNOWLEDGMENT

Northern Arizona University sits at the base of the San Francisco Peaks, on homelands sacred to Native Americans throughout the region. **We honor their past, present, and future generations, who have lived here for millennia and will forever call this place home.**



NAU BY THE NUMBERS:



1899

FOUNDED IN
FLAGSTAFF, AZ



28,000+

STUDENTS - FLAGSTAFF,
STATEWIDE, AND ONLINE



4,600+

FACULTY AND
STAFF



40%+

FIRST GENERATION
COLLEGE STUDENTS



20+

NAU
LOCATIONS

Information provided from NAU facts and statistics



NAU Strategic Roadmap

NAU - 2025 Elevating Excellence, the strategic plan endorsed in 2022, describes priorities compiled through the NAU community's thoughtful engagement process. The Plan reflects bold aspirations for the future and the evolving challenges and opportunities facing public institutions of higher education. To equitably serve students and communities from all backgrounds, identities, and lived experiences, our commitment to diversity, equity, inclusion, and justice is infused throughout both the Strategic and Master Plans. The institution will capitalize on NAU's 124-year history of distinctive excellence as an engine of opportunity to drive social impact and economic mobility for the people of Arizona and beyond. The following priorities were established in the Strategic Plan and represent the foundation for the Master Plan

ACADEMIC EXCELLENCE

NAU's high-quality academic programs, general studies curriculum, and the teaching excellence of our faculty will foster students' knowledge and competencies necessary for professional success, informed civic engagement, global citizenship, lifelong learning, and the promotion of a more just and sustainable future.

STUDENT SUCCESS

Grounded in a student-centered institutional culture of care, NAU will provide accessible and affordable educational opportunities, with tailored support services that enable students to complete their academic credentials and realize transformative outcomes from their collegiate experience.

COMMITMENT TO INDIGENOUS PEOPLES

In recognition of the unique sovereign status of Native Nations and the sacred land on which the university was built, NAU will continue intentional support for Indigenous students, faculty, and staff; develop university-wide culturally responsive educational opportunities and programming; and build mutually beneficial partnerships with Indigenous communities that will position NAU as the nation's leading university serving Indigenous Peoples.

IMPACTFUL SCHOLARSHIP

NAU's teacher-scholars will engage in impactful research, scholarship, and creative activities to provide transformative learning opportunities, engage our diverse students and communities, advance disciplinary and interdisciplinary knowledge, and contribute to solving problems of regional, national, and global relevance.

MISSION-DRIVEN AND DIVERSE FACULTY AND STAFF

NAU will implement employment practices to support the recruitment, retention, development, and promotion of a highly qualified, mission-driven, diverse workforce. NAU's commitment to individuals from all racial, ethnic, cultural, and socioeconomic backgrounds, national origins, disabilities, age, veteran status, religious or political beliefs, sexual orientations, gender identities and expression, and lived experiences strengthens our institutional workforce culture that incorporates diversity, equity, inclusion, and justice in the pursuit of excellence and the promotion of student success.

COMMUNITY ENGAGEMENT

NAU will engage locally, regionally, and globally with public and private partners to foster mutually beneficial relationships that enhance our student's educational experiences, contribute to broad social impact, and increase individual, communal, cultural, and economic vitality.

SUSTAINABLE STEWARDSHIP OF RESOURCES

NAU will effectively utilize our physical, technological, and financial resources in support of our vision and mission, with a commitment to the responsible use of environmental resources, innovative use of technology, and mission-driven financial investments and philanthropic activity.

SUSTAINABILITY

The Strategic Plan is a result of the goal to re-imagine how NAU utilizes and continually improves physical resources to optimally deliver all aspects of the university's mission. NAU aspires to be a catalyst of change in higher education institutional impact of sustainability climate adaptiveness.

Source: NAU 2025 - Elevating Excellence

Aligning Elevating Excellence with the Campus Environment

The Comprehensive Sustainable Smart Campus Master Plan is the physical manifestation of the Elevating Excellence Roadmap and the academic mission of the university.

Achieving the vision set forth in *Elevating Excellence* will require changes to the physical campus. The Campus Master Plan furthers the university's long-standing mission and documents the vision for the physical campus environment.

The Master Plan is an ambitious, yet realistic, shared vision that will guide the physical development of NAU over the next decade and beyond.

Decisions regarding the prioritization of needs are outlined, including all the strategic planning methods that have gone into its development. Within the plan are recommendations for the physical campus environment, including land use, open space, infrastructure, and circulation.

Propelling Northern Arizona University into the next decade and beyond.

The Comprehensive Sustainable Smart Campus Master Plan establishes a vision for a vibrant campus environment.

The Comprehensive Sustainable Smart Campus Master Plan ("Master Plan," "Plan") envisions a dynamic campus that addresses both the current and future needs of the university. **Instead of focusing on physical expansion, the Plan optimizes existing physical assets of the campus, transforming it into a center for discovery, innovation, societal change, and learning.**

The Plan emphasizes priority facility projects that will be implemented in the coming decade and beyond. These projects encompass strategies for preserving and re-purposing existing buildings while also proposing new and replacement structures.

A key aspect of the Plan is the integration of a unique and distinctive landscape strategy, a comprehensive sustainability framework, forward-thinking infrastructure, and a comprehensive multi-modal circulation strategy. Together, these components ensure seamless movement and connectivity across the entire campus.

The Plan re-imagines how NAU utilizes and continually improves physical resources to optimally deliver all aspects of its mission within the context of climate and carbon commitments, a post-pandemic environment, a commitment to safety and health, and ongoing prioritization of exceptional student learning, service, and support.

This Plan responds directly to the university's strategic road map with bold actions and deliberate measures:

- Focuses on students on campus today and promises to embrace students of the future
- Promotes an inclusive campus environment
- Reflects the thoughts and passionate ideas of a variety of voices
- Stretches sustainability and resiliency actions to meet NAU's carbon commitments
- Encourages ideas that embrace and welcome the many communities of Northern Arizona

Aligned with the strategic priorities outlined in the Climate Action Plan and Roadmap to Carbon Neutrality and incorporating the themes, goals, and principles of the Plan, this visionary blueprint outlines a framework for the university's growth and development over the next ten years.

The Role of the Comprehensive, Sustainable, Smart Campus Master Plan

The Campus Master Plan is the principal planning document for the physical campuses of NAU. It defines and sets the direction for the ongoing development of the campus environment that supports the mission, core values, and heritage of the institution.

The purpose of the Plan is to:

- **Craft a vision for the future that aligns with the strategic direction of the university**
- **Create a guide for physical development over time**
- **Establish a basis for informed decision-making**
- **Strengthen relationships across the campus and within the community**
- **Provide a road map and tools for implementation**
- **Fulfill a requirement of the Arizona Board of Regents**

Planning is an ongoing process; therefore a flexible framework must be in place that can respond to current and future needs. While the goals, principles, and values of the Plan may remain consistent over time, the physical implementation of these will need to evolve to meet unanticipated changes. The Plan is developed with the intent to be adaptable to the changing needs of the institution.

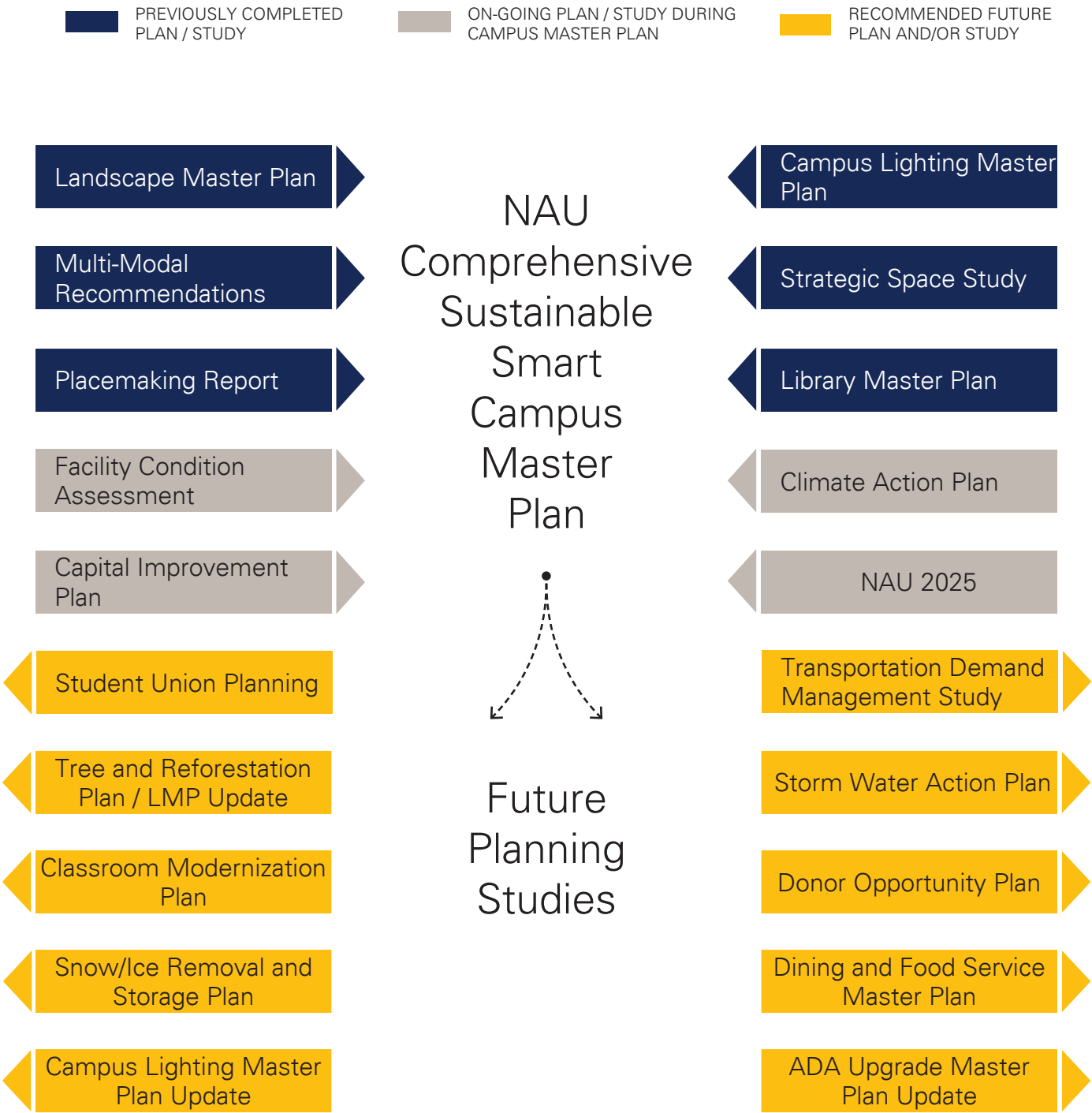
The consideration of a future campus is centered around creating outstanding student engagement, optimizing resources, and anticipating new perspectives on human interactions and experiences in both the physical and virtual world.

NAU is pursuing the possibilities of a Smart Campus through integrating technological influences into the campus environment. Influences thoughtfully consider a future defined by new interactions among humans and cyber sentient entities, redefining the sense of place, and projecting the impact of innovations of technology, autonomous vehicles, automated building infrastructure, augmented realities, and immersive virtual learning space to create a unique working and learning experiences.

Within the Master Plan recommendations, there are opportunities to pilot new technologies for campus circulation, gathering spaces, wayfinding, information sharing and collection, learning and working spaces, and building design.

The diagram on the following page describes the relation of past, current and future planning efforts to the Plan. To support NAU's Master Plan, additional studies have been recommended to enhance and expand the university's understanding and direction of the physical campus. These future plans will provide more detail around specific elements and campus programs.

Integrated Planning



Process and Schedule

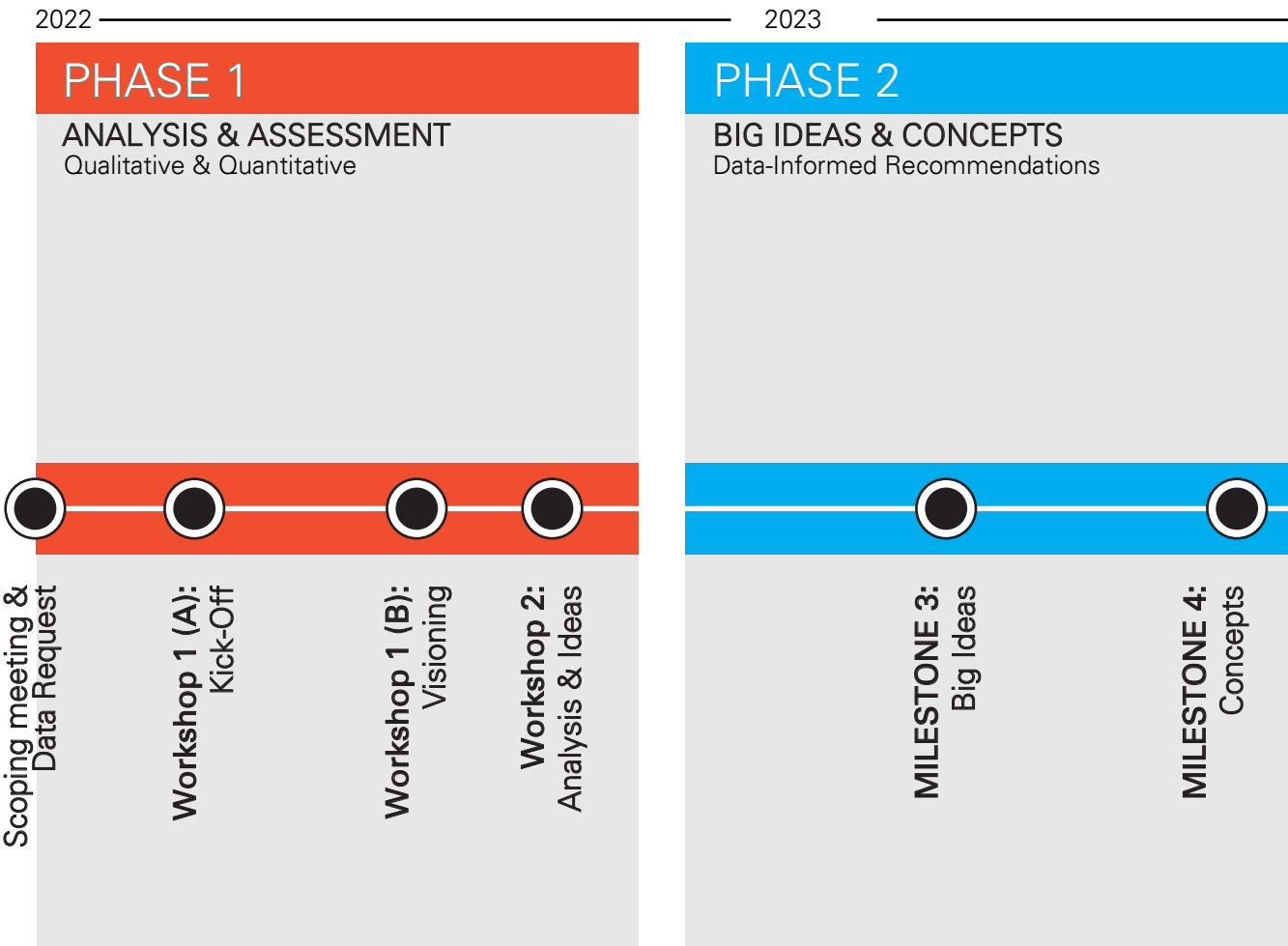
Throughout the planning process, we created a prioritized road map for the future of NAU.

A successful plan is built with critical input from students, faculty, staff, administrators, and community members throughout all phases of the project. The project kicked-off in April 2022 and will be presented to the Arizona Board of Regents for approval in Fall 2023.

During each phase, various workshops, milestones, and deliverables were completed.

Phase 1 - Analysis & Assessment

In Phase 1, the focus was on conducting a comprehensive analysis and assessment of the existing campus conditions, needs, and challenges. This involved gathering data, conducting surveys, interviews, and workshops with interested/affected parties, and analyzing various factors such as enrollment projections, infrastructure, transportation, sustainability, and campus culture.



Phase 2 - Big Ideas & Concepts

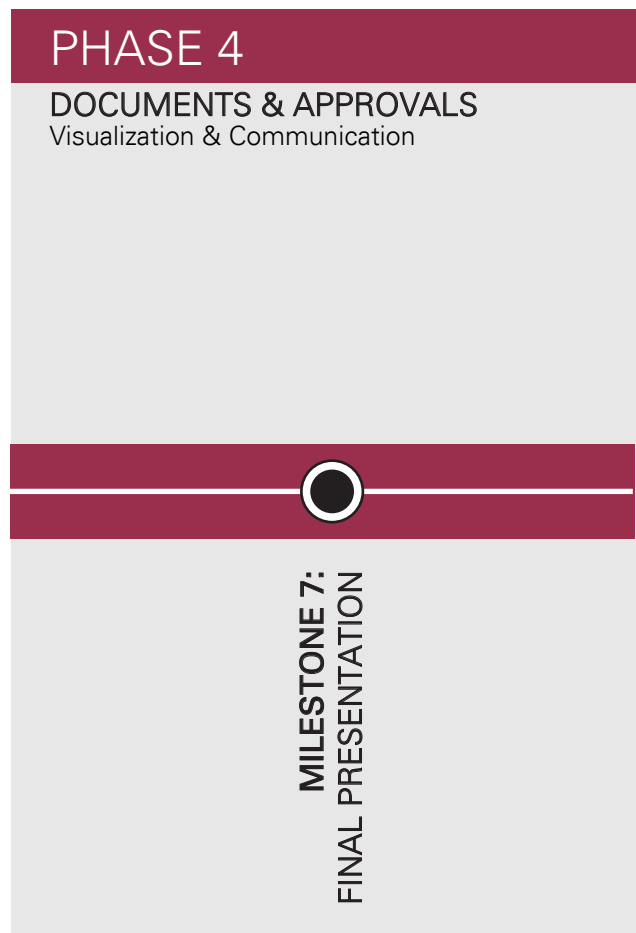
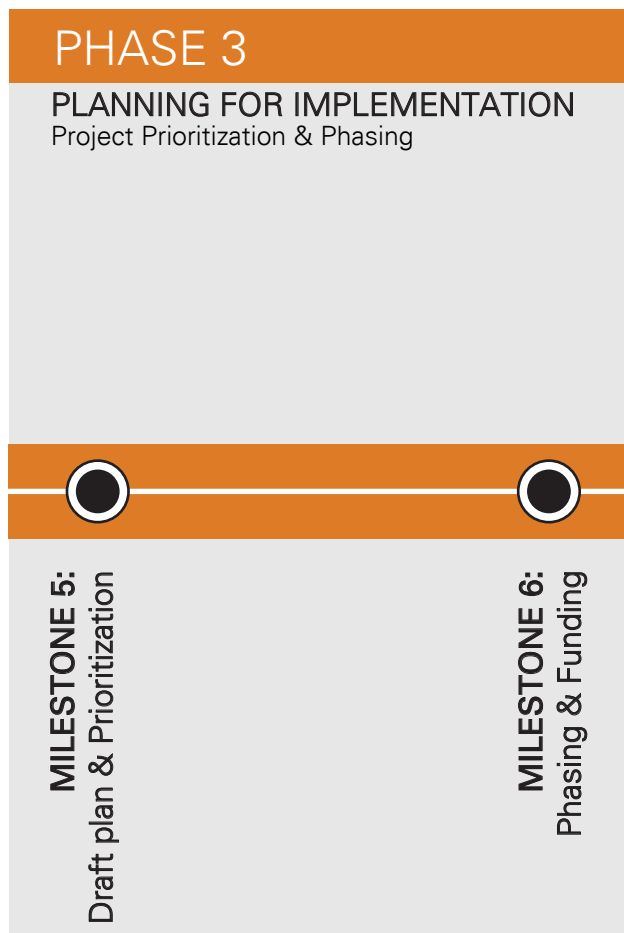
Phase 2 focused on generating vision, inspiration, and design principles that shape the future vision of the campus. It involved brainstorming sessions, design charrettes, and workshops to explore innovative and creative possibilities.

Phase 3 - Planning for Implementation

Phase 3 involved developing a detailed plan for the phasing and creation of the Plan. It included prioritizing projects, defining strategies, creating an implementation timeline, cost and impact analysis, and establishing a framework for resource allocation.

Phase 4 - Documents & Approvals

The final phase compiled final deliverables and approvals from necessary parties, including the Board authorities, Arizona Board of Regents. It included the comprehensive report, models, presenting the Plan to decision-makers, and incorporating final feedback.



CAMPUS AND COMMUNITY ENGAGEMENT

Though the Plan was guided by planners, architects, and consulting experts, it is at its core, a community effort. **Through a series of active workshops, open houses, interviews, tabling activities, and digital tools, the voices of NAU students, faculty, staff, and community members were captured and their experiences informed the final deliverables and outcomes of the project.** This engagement defined goals, prioritized planning solutions, and encouraged participatory decision-making. Most of these sessions included interactive components where participants worked alongside the project team to advance the Plan in real-time. The holistic view that results from this level of engagement creates momentum and buy-in that is essential for the implementation and long-term success of the proposed Master Plan.



FOCUS GROUPS AND DEEP DIVE MEETINGS

As part of the Plan, focus groups were established to drive and inform the planning process. Key to the process were frequent touchpoints with these groups as well as interviews with university leadership, meetings with affinity groups, school divisions, departments, colleges, and key constituency groups including the public.



DIGITAL ENGAGEMENT

A project website was developed for the Campus Master Plan and served as an active homepage that charted the schedule and progress while providing a platform to transfer information and communication to the campus community. Throughout the planning process, the project website included workshop reminders, updates, and reports.

Digital communication through the use of a project website and social media accounts complemented in-person sessions by providing easy access to presentation materials and acting as a conduit for participants to ask questions and provide input.



SURVEY AND QUESTIONNAIRES

A survey of NAU students, faculty, staff, alumni, and community members was conducted to better understand the experiences of individuals and their ideas for a future campus. Topics focused on Services and Resources, Circulation Patterns, Wellness, Dining and Retail, and Points of Interest. In total, more than 1,500 individuals participated in the survey. The results of this survey and all engagement can be found in the Campus Engagement Report located in the Appendix.



150+

Comments submitted on website



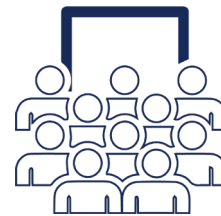
50+

Focus Groups



550+

Staff Participants



600+

Student Participants



200+

Faculty Members



1,500+

Survey Responses



2,000+

Website Participants



5,000+

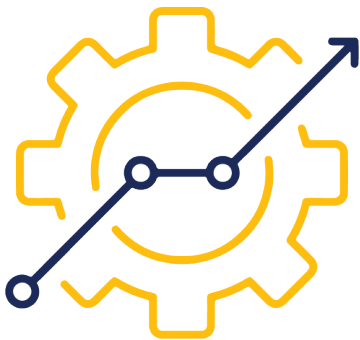
Total Participants

The drivers of the Comprehensive Sustainable Smart Campus Master Plan are:



A Student-Centered Plan

NAU is a hub for learning, discovery, innovation, and societal change. The Plan seeks to adapt the campus environment to meet student needs of the future. The Plan also focuses on supporting all members of our diverse student body, so they feel welcomed, supported, comforted, and safe. The NAU campus of the future will further reflect and enhance inclusiveness.



Resource Optimization

Presently, funding for campus physical growth is limited, but the need for higher education is greater than ever. Therefore the Plan's focus is less about physical growth and more about optimizing the existing campus over the next decade. The Plan includes critical short-term needs that center around deferred maintenance and student success, as well as minimizing impacts on natural resources through carbon reduction as part of the Climate Action Plan.



Visionary Framework

This Plan sets a high-level vision for long-term development on the campus over the next decade and beyond. It balances aspirational thinking with a realistic understanding of constraints.

Aligning the Vision of the Plan

NAU Vision Statement:

NAU aims to be the nation's preeminent engine of opportunity, vehicle of economic mobility, and driver of social impact by delivering equitable postsecondary value in Arizona and beyond.

Above is the vision statement for NAU as an institution.

During early phases of engagement for the Plan, the steering committee collaborated to create a vision statement that describes what they would like the Plan to help accomplish.

This Campus Master Plan Vision Statement guided the process to confirm any decision or outcome proposed aligned with the collective vision.

Campus Master Plan Vision Statement:

NAU is a **welcoming community** that embraces **collaboration** and **inclusion** and **honors Indigenous Peoples. Sustainability, creativity, and accessibility** are all reflected in a **well-designed** environment that **connects people** and leaves a lasting imprint on one's experience.

Key Elements of the Plan



SENSE OF PLACE

Northern Arizona University is located in one of the most beautiful and culturally rich places in the United States. The plan must honor and reflect the sense of place including acknowledging the land:

“Northern Arizona University sits at the base of the San Francisco Peaks, on homelands sacred to Native Americans throughout the region. We honor their past, present, and future generations, who have lived here for millennia and will forever call this place home.”



INTEGRATION OF PAST PLANNING

Over the past decade, NAU has completed several plans and studies that provide direction to systems and spaces across campus. The Comprehensive Sustainable Smart Campus Master Plan must integrate these plans together, while adding more insight for the future.



STUDENT-CENTERED PLANNING

The campus will further develop student-centered spaces, which provide opportunities for collaboration, gathering, and connections for learning beyond the classroom. The Plan outlines and highlights facility needs around academic requirements, research, student life, and activities that support overall student success.



POST-PANDEMIC PLANNING

Higher Education has changed immensely as a result of the pandemic. The Plan considers changes and new strategies around teaching, learning, and working environments for the campus such as updated space metrics to encourage collaboration, large, flexible and tech-rich classrooms, and hybrid work policies that allow for flexibility of workspace.



EQUITABLE PLACEMAKING

The campus serves populations today that are different from who it was designed for. Today and in the future, NAU students, faculty, and staff will continue to evolve, and the Plan must consider changes to the physical environment that celebrate and represent them and the larger campus community.



CONNECTED CAMPUS: SMART TECHNOLOGY CAMPUS ELEMENTS

NAU is pushing the boundaries of creating a frictionless campus environment. In partnership with Information and Technology Services, the Plan must incorporate smart technology solutions across the physical campus.



SYSTEMS THINKING: INFRASTRUCTURE, CIRCULATION, OPEN SPACE

The Plan fosters a comprehensive planning approach, improving functionality, shaping campus identity, and prioritizing user experience and well-being. It also ensures the long-term adaptability of interconnected campus elements.



STATEWIDE LOCATIONS

The promotion of access to higher education, regional economic development, community engagement, distributed resources, and resilience are all important to NAU and statewide locations. By expanding and improving the NAU presence, the university can continue to fulfill the mission of providing high-quality education and serving the diverse needs of students and communities throughout the state.



ASSET MANAGEMENT AND IMPLEMENTATION

To optimize resource allocation, promote long-term sustainability, inform strategic decision-making, enhance the user experience, ensure compliance and risk management, and foster accountability and transparency, NAU can create a resilient and efficient campus environment supporting its mission and goals.



CARBON NEUTRALITY

The Climate Action Plan (CAP) and Roadmap to Carbon Neutrality outline NAU's commitment to sustainability and reaching carbon neutrality by 2030 for Scope 01 (on site emissions, fleet and natural gas) and Scope 02 (purchased electricity). Investment in the university's infrastructure will be a critical component to achieving this commitment. By integrating climate considerations into this Plan, NAU will mitigate climate impact and promote a more resilient and sustainable campus community.



COMMUNITY DYNAMICS

Planning for the relationship between the Flagstaff community and the NAU campus is crucial for fostering connectivity, promoting attainable transportation, providing access to essential resources, stimulating economic development, encouraging cultural exchange, and ensuring a positive town-gown relationship.

Campus Today

NAU’s campus has a variety of needs spreading throughout all sections of this Plan.

ACADEMIC NEEDS:

- Consolidating Colleges: Many colleges are spread out across campus making it difficult for faculty, staff, and students to interact and participate in interdisciplinary work
- Create inter/intra-college community dialogue; Developing spaces to support these communities to come together (Library, academic living rooms, lounges, study spaces)
- Implement the Library Master Plan
- Re-designing teaching spaces to support a more active learning environment and provide training/incentives to do so
- Ensure the presence of spaces that foster and support the research, scholarly and creative work of the campus community

LANDSCAPE AND OPEN SPACE NEEDS:

- Replacement and establishing of plantings, especially native, educational, and tree restoration
- Conversion of ornamental grass turf to more native and drought tolerant plantings
- Landscape on campus edges and entries
- Outdoor learning spaces and East-West Pedway connections
- Reinforcement of green space as critical enrollment factor and student wellness

SAFETY NEEDS:

- Address perceived dark areas, while balancing dark sky requirements including night walk
- A cohesive emergency and communication system to compliment or replace the legacy blue phone system

CIRCULATION NEEDS:

- East - West connections and enhancement of Pedway
- Alternative transportation including - bike lanes (where missing) and storage, scooter and skateboard needs, missing sidewalks
- Parking toward the edges of campus/fewer internal parking lots
- Separation of circulation modes, including e-mobility, specifically on the Pedway
- Incentivization of electric vehicles and public/shared transportation
- Address vehicular intersection and pedestrian conflict areas

STUDENT LIFE NEEDS:

- University Union renovation to align with need for clubs, organizations, informal study spaces, and lounges
- More on-campus housing to meet a growing demand
- Student-focused amenities on south campus
- Additional recreation and wellness space on south campus

SUSTAINABILITY NEEDS:

- Follow goals established in, and continue to improve campus through the Climate Action Plan and Roadmap to Carbon Neutrality
- Reduction of overall campus Energy Use Intensity
- Improved Recycling/Waste Management and Behavior Change Programming

INFRASTRUCTURE NEEDS:

- Resiliency in infrastructure and utilities
- Stormwater maintenance
- Planning and resource allocation for the implementation of geothermal and woody biomass next generation heating and cooling systems

Campus Today (2023)

- EXISTING BUILDINGS
- EXISTING PARKING
- CAMPUS BOUNDARY



State-wide Campuses and Locations

STATE-WIDE LOCATIONS FUTURE PRIORITIES

Expanding for workforce development.

NAU is currently studying industry trends to ensure that program offerings are in alignment with the changing needs of Arizona's workforce. Most of NAU's projected enrollment growth is planned to occur at the state-wide locations, therefore program offerings must be focused on high-demand, high-growth programs, such as Nursing, Allied Health, and Engineering. For example, at North Valley, there is a current initiative to expand healthcare programs expanding the accelerated nursing program, allied health programs, and occupational health programs.

Investigating the opportunity for regional branch campuses. While NAU has not had specific conversations with partners in the state-wide sites changing, as an institution, NAU is investigating how a regional presence makes a difference in how students are served. The goal is to make education accessible and affordable for students across the state. A current consideration is to create standalone branch campuses throughout the state. Unlike many of the locations today, the branch campuses should be planned and designed to create a complete campus experience that is in alignment with the NAU brand. The campuses should include spaces and programs that include student services, wellness spaces, student space, dining, residence halls, etc.

Partnerships are key. Within state-wide locations or with the expansion of branch campuses, collaboration and partnership with the local institutions is critical for articulation agreements, sharing space, services, and amenities.



NAU currently has 20+ locations across Arizona.

- MAIN, OR MOUNTAIN, CAMPUS
- NORTHERN ARIZONA LOCATIONS
- CENTRAL ARIZONA LOCATIONS / MARICOPA COMMUNITY COLLEGES
- SOUTHERN ARIZONA LOCATIONS

Source: <https://nau.edu/about/locations-and-maps/>

Expanded programs within the Reservations and Tribal Community.

– NAU is also investigating the opportunity to provide services and programs within reservations and tribal communities across the state.



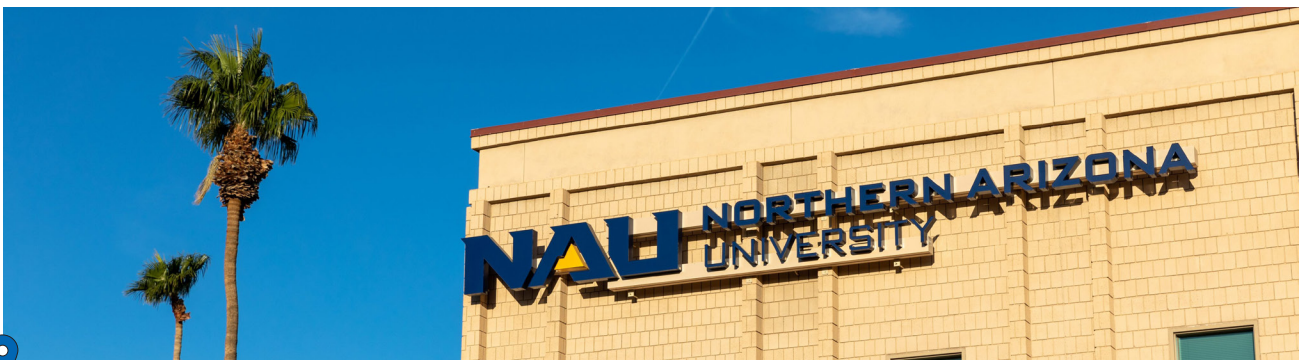
Main or Mountain Campus



NAU-Yavapai



Phoenix Bioscience Core



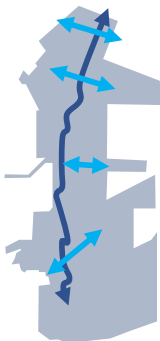
NAU-Yuma

Planning and Development Framework



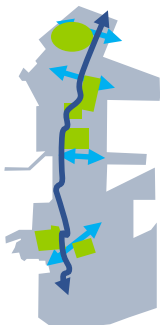
USE CAMPUS EDGE TO CONNECT TO COMMUNITY

The campus edge offers an opportunity for improvement and enhancement. NAU can create a welcoming transition between the campus and the surrounding Flagstaff community through a thoughtful landscape, the incorporation of pedestrian-friendly pathways, and the integration of signage, art, and gathering spaces. Enhancing the campus edge can foster a stronger sense of connection and collaboration with the community, while also creating a positive first impression for visitors. Additionally, attention to safety, lighting, and accessibility can further improve the functionality and attractiveness of the campus edge, ensuring that it serves as a vibrant and engaging gateway to the University.



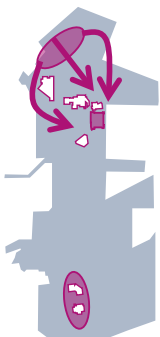
STRENGTHEN EAST-WEST CONNECTIONS

Strengthening the east-west connections is crucial for enhancing accessibility and universal design, promoting efficient circulation, and fostering a cohesive campus environment. Seamless pathways facilitate movement between different academic and administrative areas, which can be achieved through the development of well-designed pedestrian and cycling routes, the integration of wayfinding signage, and the creation of vibrant gathering spaces along these connections. These connections enhance the sense of community and unity within the campus, allowing for a more integrated and dynamic learning and working environment.



IMPROVE UNDERUTILIZED OUTDOOR SPACES

By revitalizing underutilized outdoor spaces, NAU can create versatile and functional environments that cater to various needs and activities. This could involve redesign, incorporating different seating options, providing shade structures, and integrating amenities such as Wi-Fi access and power sources. Additionally, the introduction of new landscape elements and art installations can transform underutilized spaces into vibrant and inviting areas that promote relaxation, socialization, and outdoor learning. By optimizing these outdoor spaces, NAU can create dynamic campus environments that enrich the student experience, foster a sense of community, and promote overall well-being.



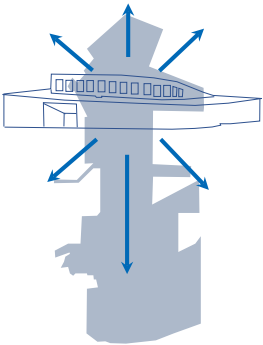
CREATE A MORE EFFICIENT SERVICE HUB & NETWORK

Streamlining operations and providing enhanced support to the campus community can be done by centralizing key services and resources into well-designed hub areas, where NAU can improve convenience and accessibility for students, faculty, and staff. By consolidating administrative offices, student support services, and campus facilities into locations that offer easy access and efficient workflows, efficiencies are created. Establishing two hubs of service strategically located ensure essential resources and assistance are readily available for academic and residential areas. NAU can optimize its operations and enhance the experience, especially with the new south campus service hub area, which has the most opportunity for growth..



RESOLVE VEHICLE AND PEDESTRIAN CONFLICT AREAS

By identifying and addressing conflict areas, NAU can implement measures that promote coexistence between cars, bicycles, and pedestrians, ensuring the safe and efficient movement of all campus users. Such measures include redesigning intersections, crosswalks, and parking areas to prioritize pedestrian safety and improve visibility. Examples of implementing traffic calming measures include closing Knoles Drive to single occupancy vehicles at peak times of day. Enhancing signage, implementing designated pedestrian zones, and providing clear markings can all help clarify the right-of-way and improve overall traffic flow for a smooth and efficient campus.

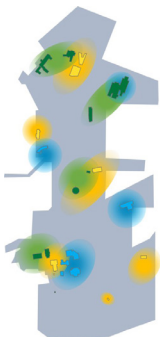


INDIGENIZE NAU

By embracing and integrating Indigenous perspectives, knowledge, and culture from the Native American Cultural Center (NACC) throughout campus, the NACC can serve as a hub for education and cultural activities that promotes appreciation of Indigenous traditions. The planned expansion of the NACC footprint will serve growing programs. Incorporating medicinal plants across the campus not only honors healing practices but also provides education opportunities. Due to the relationship with cemeteries, it is important to obstruct the views to them from campus to make Indigenous campus users feel more comfortable. Installing murals, flags, and other art that reflect Indigenous stories, communities, nations, symbols, and experiences can visually represent and celebrate Indigenous cultures. Creating talking circles and gathering spaces encourages dialogue, community-building, and the sharing of Indigenous knowledge.



ADDRESS DEFERRED MAINTENANCE & INFRASTRUCTURE It is crucial to ensure that the backlog of maintenance projects is steadily decreasing instead of growing each year, and to find ways to implement smaller, more manageable improvements alongside larger capital projects. While some facilities are candidates for demolition, it is important to also prioritize key renovations of existing assets. Investing in the plant locations is vital to maintain the functionality of the campus, with particular attention to the aging south plant which requires action within the next decade. This goal is vital in supporting NAU's Climate Action Goals along with improving operational efficiency and taking a proactive approach to campus improvements.



CONSOLIDATE ACADEMIC USES & BUILD COMMUNITY WITHIN DISTRICTS

By strategically consolidating disciplines that are spread widely across campus, such as engineering (yellow), social behavioral sciences (green), and health and human services (blue), NAU can minimize collaboration "commute" times and reduce cross-campus traffic. Promoting cohesion, it also encourages interdisciplinary collaboration and creates a sense of community within specific districts. Bringing related academic departments and faculty closer together will enable for innovation and integrated learning.

NAU Campus Vision Plan for New Construction, Renovation, and Replacement

REPLACEMENT BUILDINGS

- 1 Social and Behavioral Sciences Replacement Building
- 2 Interdisciplinary Science and Academic Complex (ISAAC)
- 3 College of Nursing Replacement Building
- 4 Academic Infill Building - Phase 2

NEW BUILDINGS

- 5 South Campus Apartment Complex
- 6 South Campus Community Recreation and Wellness Building
- 7 Milton Community Building
- 8 Student Pavilion Building
- 9 Mixed-Use Complex North Campus
- 10 Central Campus Apartment Complex

ADDITIONS

- 11 Cline Library Addition
- 12 Art and Design Addition
- 13 Dubois Student Union Addition
- 14 Native American Cultural Center Addition
- 15 Facility Services Addition
- 16 Engineering Addition

PARKING STRUCTURES

- 17 Cline Library Parking Structure
- 18 Transportation Center + Parking Structure
- 19 South Campus Residential Parking Structure

RENOVATIONS

- 20 Physical Sciences
- 21 Institute For Human Development
- 22 University Union
- 23 Cline Library
- 24 Adel Mathematics
- 25 Gammage
- 26 Student and Academic Services
- 27 J. Lawrence Walkup Skydome
- 28 DuBois Ballroom

RENOVATIONS (CONTINUED)

- 29 Biological Sciences
- 30 Geology Building
- 31 Raul H Castro Social and Behavioral Sciences
- 32 Fieldhouse
- 33 Babbitt Administrative Center
- 34 Beaver Street School
- 35 Old Main
- 36 Eastburn Education Center
- 37 Health Professions
- 38 Facility Services
- 39 ROTC and C4P Lab Building
- 40 Rolle Activity Center
- 41 Bury Hall

INFRASTRUCTURE

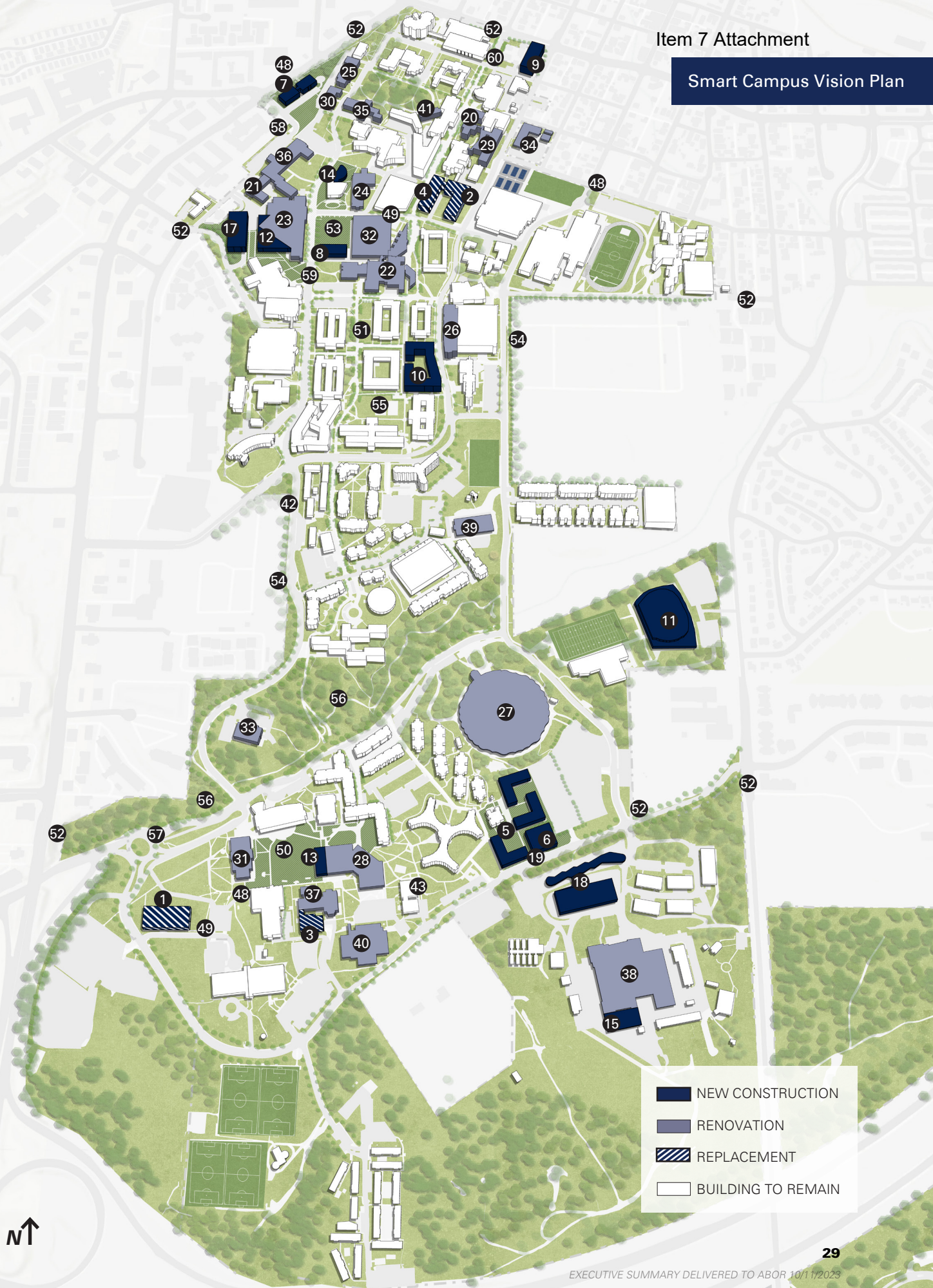
- 42 Interconnect North and South Heating Systems
- 43 Conversion of South Campus Plant to Low Temperature Hot Water
- 44 Conversion of Buildings from local heating systems to a centralized heating system
- 45 Deep Energy Retrofits by building
- 46 Woody Biomass and/or Geothermal conversion project
- 47 Electrify Campus Commercial Kitchens

OPEN SPACE

- 48 Milton Edge Open Space and Indigenous Welcome Signage
- 49 East West Connections
- 50 South Quad Improvements
- 51 Pedway Improvements
- 52 Trails Connections to FUTS
- 53 Library Plaza and Gathering Lawn
- 54 Cemetery Screenings
- 55 Central Quad Improvements
- 56 Sinclair Wash Improvements / Walk of Nations

CIRCULATION

- 57 McConnell Drive Multi-Modal Improvements
- 58 Milton Entry and connection to S. Riordan Ranch Street
- 59 Pedestrianize Knoles Drive
- 60 Pedestrianize Humphrey's Street



The landscape and open space of Northern Arizona University are essential for immersive engagement.

Campus landscape and open spaces contribute to the identity of Northern Arizona University and serve diverse functions such as teaching, learning, biodiversity, recreation, outdoor gatherings, relaxation, carbon sequestration, climate adaptation, and cultural expression.

The outdoor spaces throughout campus also play a pivotal role throughout each season. In spring, the landscape blooms with colorful flowers and trees, adding beauty and vibrancy to the surroundings and providing a welcoming environment for outdoor activities. In the summer, the landscape offers shaded areas and tree canopies, providing relief from the heat for recreation and relaxation, and also becomes popular for outdoor pursuits. In the fall, the foliage is showcased with trees displaying vibrant colors and scenic atmosphere as well as providing cooler temperatures for campus users to enjoy. In the winter, the landscape hosts snow activities and brings a different environment to the campus. It also provides needed functions, like locations for snow storage. Per the 2015 Landscape Master Plan (LMP), the landscape should incorporate species to provide year-round interest and integrate evergreens for structure and ground plane.

The Master Plan focuses on optimizing the campus outdoor space to create a useful and sustainable environment. Campus landscapes will enhance the user experience, help conserve resources such as water, labor, energy, and promote biodiversity.

The proposed landscape improvements will energize areas that are currently underutilized. By completing the mobility network across campus and connecting all sidewalks and pathways, the campus can become a seamless network that is welcoming and navigable to all who visit.

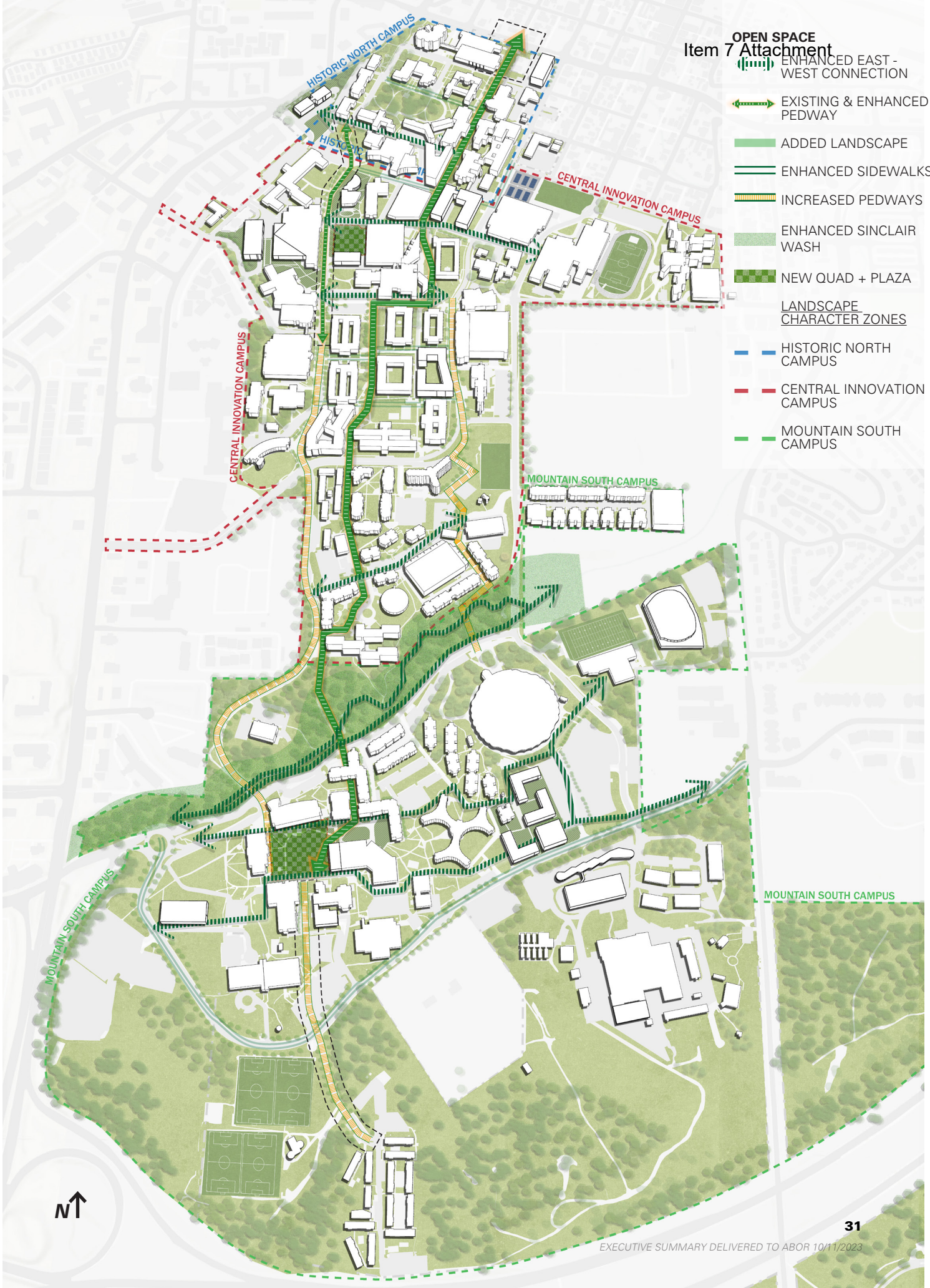
The organizing spine of the pedestrian network is the campus Pedway. Improvements and points of interest added along the Pedway will enhance the user experience and the campus brand, maximizing the benefit of this unique campus asset.

The landscape also plays a critical role in welcoming visitors to campus, beginning at the campus edge and throughout its space. Enhancing the campus gateways with interesting landscape and intuitive wayfinding provides a cohesive feeling of arrival and destination before even entering the grounds.

The campus character zones, outlined in the 2015 Landscape Master Plan lend themselves to be enhanced and provide areas of campus to have specific plantings, feelings, and looks. These character zones provide a sense of place when in a specific area of campus and include: Historic North Campus, Central Innovation Campus, and Mountain South Campus.

OPEN SPACE Item 7 Attachment

- ENHANCED EAST - WEST CONNECTION
- EXISTING & ENHANCED PEDWAY
- ADDED LANDSCAPE
- ENHANCED SIDEWALKS
- INCREASED PEDWAYS
- ENHANCED SINCLAIR WASH
- NEW QUAD + PLAZA
- LANDSCAPE CHARACTER ZONES
- HISTORIC NORTH CAMPUS
- CENTRAL INNOVATION CAMPUS
- MOUNTAIN SOUTH CAMPUS



Circulation is a critical part of experiencing Northern Arizona University's large campus.

Moving the university's population across the large campus for daily activities creates an enormous amount of movement both on and off campus.

From on-campus residents walking to class, to off-campus residents relying on the transit system, and service vehicles accessing buildings for deliveries and repairs, each of these systems must align harmoniously to create seamless, convenient, and safe experiences for all campus users.

The Master Plan relies on a hierarchical mobility structure focused primarily on pedestrian safety. A dynamic and functional pedestrian environment contributes to the overall campus environment, supports campus sustainability goals, and is cost-effective.

The preferred travel modes at NAU include walking, bicycles, skateboards, scooters, and on-campus transit. These modes have the lowest environmental impact and also support campus wellness initiatives.

The vision to create a pedestrian-focused campus requires a mobility system that relocates vehicles away from the center and uses the recovered areas for the highest and best use of university land. This mobility approach improves the quality of life for campus users by creating more opportunities for the exchange of ideas, chance meetings, and places to collaborate and socialize. For example, a new signature open space at the heart of campus will connect the Library, NACC, Field House, and Union in an area that today is host to pedestrian/ vehicle conflict, congestion, idling cars waiting for parking spaces, etc.














Vehicle parking is encouraged along the campus perimeter by the future construction of structured parking which will serve as transition points to switch travel modes from vehicle to walking, cycling, or transit. A perimeter parking strategy poses little inconvenience to travelers because once on campus, little time is typically lost by walking or cycling compared to driving short distances and parking a vehicle. **No net change in parking spaces is planned, however, the University's carbon commitments and goals result in the need to reduce the number of spaces through Transportation Demand Management (TDM) measures.**

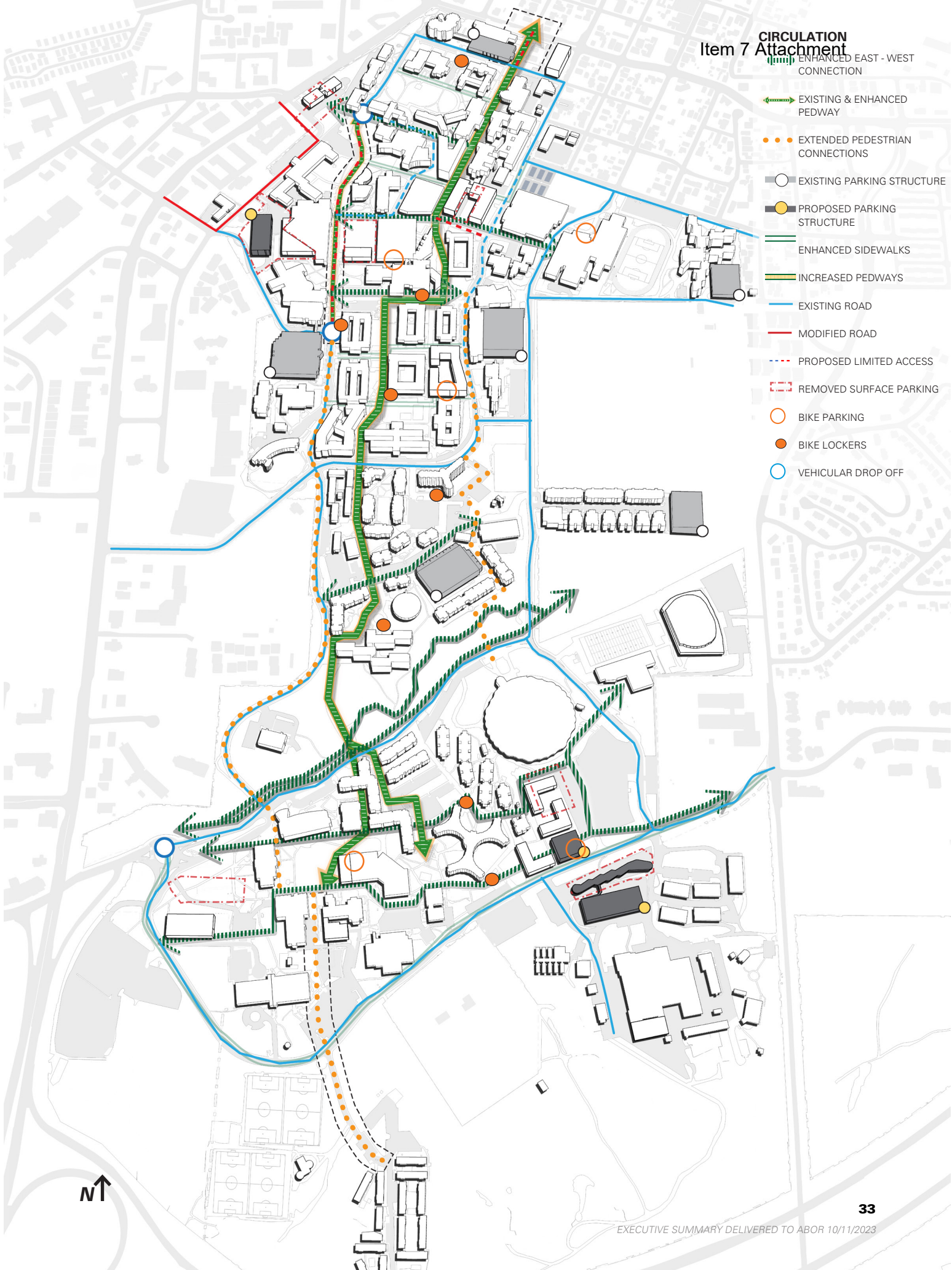
Through improvements to the pedway and the additions of East-West connections, the Plan encourages separation or restriction of mixed travel modes in order to emphasize both pedestrian and cycling safety.

The goal of a Pedestrian-Focused Mobility Hierarchy is to create a campus that emphasizes a more urban experience, prioritizing pedestrians, cycling, and then transit, and aligning with the university's commitments and goals around sustainability and carbon emissions. The outcomes will:

- 1. Improve the safety of all users**
- 2. Make non-motorized transportation and walking more comfortable and convenient**
- 3. Reduce traffic congestion by reducing the number of staff, students, and visitors who drive a vehicle to and around campus**
- 4. Reduce the demand for expensive parking and street capacity projects**
- 5. Improve storm water management**

CIRCULATION Item 7 Attachment ENHANCED EAST - WEST CONNECTION

-  EXISTING & ENHANCED PEDWAY
-  EXTENDED PEDESTRIAN CONNECTIONS
-  EXISTING PARKING STRUCTURE
-  PROPOSED PARKING STRUCTURE
-  ENHANCED SIDEWALKS
-  INCREASED PEDWAYS
-  EXISTING ROAD
-  MODIFIED ROAD
-  PROPOSED LIMITED ACCESS
-  REMOVED SURFACE PARKING
-  BIKE PARKING
-  BIKE LOCKERS
-  VEHICULAR DROP OFF



Resiliency is important for infrastructure and utilities of Northern Arizona University's campus.

Campus infrastructure aims to digitize, modernize, and decarbonize to align with NAU's goals for smart, efficient, and clean utility infrastructure. The Plan focuses on infrastructure and utilities as the foundation for the effective functioning and support of the educational and operational activities for all of campus. Reliable and well-maintained infrastructure ensures the seamless delivery of essential services throughout the campus. At the core of the recommendations is to revitalize campus infrastructure while tackling deferred maintenance at the building, distribution, and plant levels.

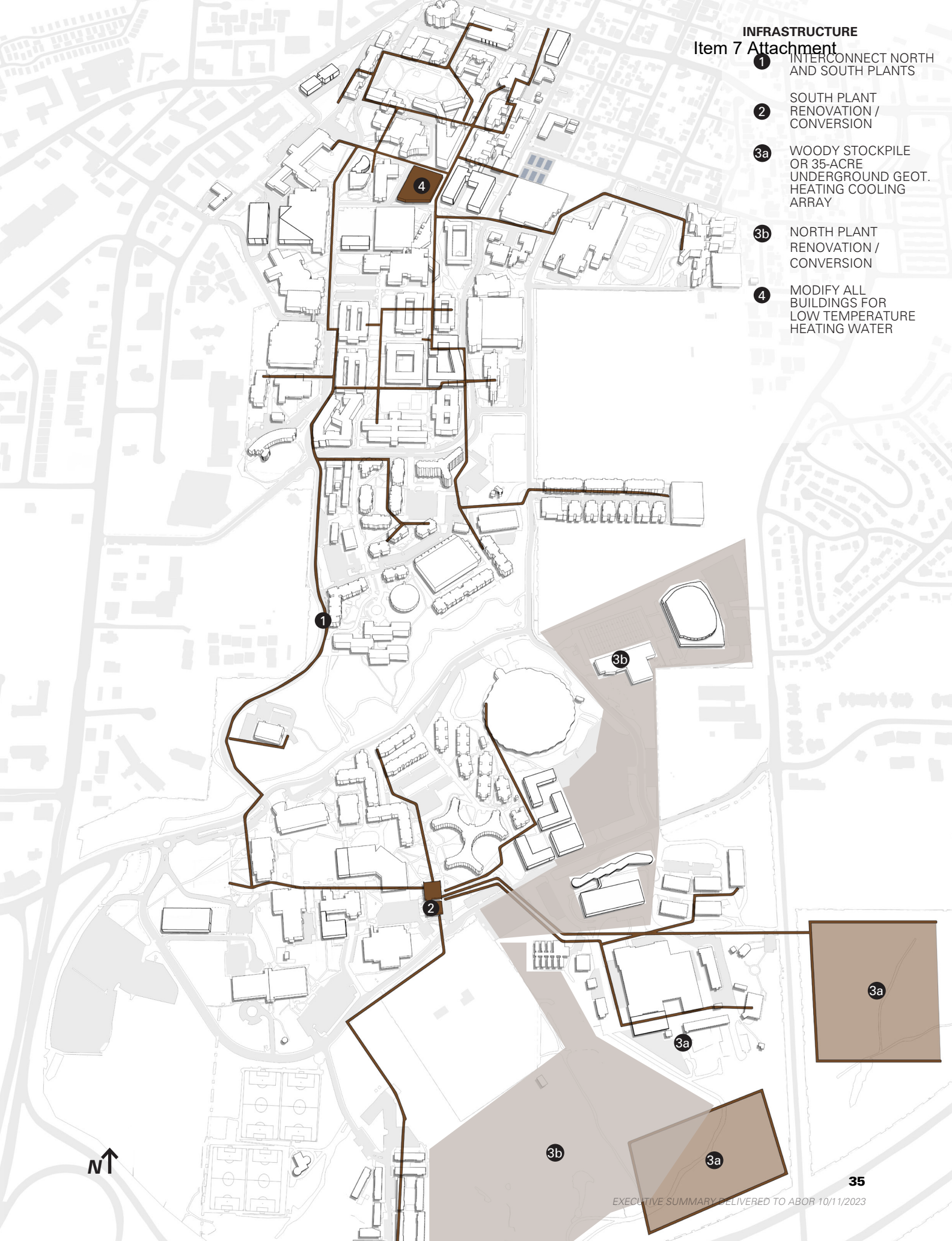
NAU Flagstaff Mountain Campus will realize carbon neutrality by 2030 for Scope 01 (on site emissions, fleet and natural gas) and Scope 02 (purchased electricity) and the investment in the university's infrastructure will be a critical component to achieving this commitment. At the forefront of the Master Plan, all future buildings and plans must consider the best way to approach planning and implementation through the goals of the Climate Action Plan and the actions outlined in the 2022 Roadmap to Carbon Neutrality.

How NAU will get there:

- Maximizing energy and water efficiency to reduce the campus' energy use intensity (EUI) and realize utility savings
- Prioritizing renovation over demolition
- Transitioning to carbon-free electricity through partnerships or a Virtual Power Purchase Agreement
- Converting the district heating system to low temperature hot water, and connecting the north and south plants
- Transitioning to ground source heat pumps (geothermal) and/or a woody biomass system
- Electrifying NAU's fleet
- Creating a culture of sustainability through behavioral change programs, enhanced commuting options, community trainings, and updated policies
- Creating a national model of a living laboratory to ensure it is preparing students, staff, and faculty to meet the climate challenges of the 21st century

INFRASTRUCTURE
Item 7 Attachment

- 1 INTERCONNECT NORTH AND SOUTH PLANTS
- 2 SOUTH PLANT RENOVATION / CONVERSION
- 3a WOODY STOCKPILE OR 35-ACRE UNDERGROUND GEOT. HEATING COOLING ARRAY
- 3b NORTH PLANT RENOVATION / CONVERSION
- 4 MODIFY ALL BUILDINGS FOR LOW TEMPERATURE HEATING WATER



A smart campus leverages technology and data to enhance the experience and optimize operations.

The future campus is centered around creating outstanding student engagement and anticipates new perspectives on human interactions and experiences in both the physical and virtual world. NAU is planning for the possibilities of technological influences on our physical world, by thoughtfully considering a future defined by new interactions among humans and cyber sentient entities, redefining the sense of place, and projecting the impact of innovations of nanotechnology, autonomous vehicles, self-repairing infrastructure, augmented realities, and immersive virtual learning space to create a unique working and learning experiences.

Smart Campus Elements:

Digital Twin: NAU will create a Digital Twin of the Flagstaff Mountain Campus and other campuses to effectively manage design, planning, and construction. This tool will enhance building performance, operations and predictive maintenance through simulations, optimize and measure realized energy efficiencies, improve space utilization, enhance safety, and capture facilities lifecycle insights to inform renovation and retrofitting priorities that address legacy deferred maintenance.

Paths of Travels: In alignment with the circulation recommendations in this plan, the university will pilot technology that provides information and connected experiences along the Pedway. Smart sidewalks also measure the traffic flow of people and can provide critical planning information to campus safety programs and future campus master planning. NAU's Pedway and sidewalks are already used for small food delivery robots. In the future, autonomous delivery applications will include the movement of larger items, goods, and supplies,

and pathways and roadways should be planned to ensure there is adequate space.

Smart Signage: Through touch-screen overlays or Bluetooth network connections, smart signage drives heightened engagement and communications with campus users and can help market events held in and around campus. In alignment with the Digital Signage recommendations and with existing mobile and digital sign technologies, NAU will pilot Smart Signage, primarily along the Pedway and at community engagement sites.

Robots: Artificial intelligence, machine learning, robotics, nanotechnology, 3D printing, genetics, space sciences, and biotechnology are expected to dominate in the coming decades. At NAU, there are opportunities to explore robotic autonomous devices to conduct labor-intensive work like traffic control, mowing, window washing, snow plowing, etc. In addition, smart warehouses to centralize and optimize receiving on campus, and smart library storage.

Smart Learning Environments: Traditional classrooms are transforming with the adoption of virtual reality environments and through flexible learning environments that support active teaching and learning. Outside the classroom, learning evolves through the presence of experiential learning throughout the campus such as maker labs, virtual reality, multimedia studios, etc. It is important to note that faculty must be engaged in how to best leverage advanced learning technologies.

Smart Buildings: A smart building collects actionable data from user devices, sensors, systems, and services on the premises. Applying that data using artificial intelligence and machine learning makes the building both programmable and responsive to the needs of the users and the building manager. A smart building converges various building-wide systems - such as HVAC, lighting, alarms, conveyance, and security capabilities - into a managed network infrastructure.

Specifically, NAU can leverage an enterprise building information system to:

1. Optimize energy management and building operations.
2. Improve space management and design
3. Enhance occupant experience and productivity.
4. Enhance safety and promote healthy buildings.

NAU will integrate Smart Building standards and components into new construction and major renovation projects such as automated building scheduling, space utilization measurement through sensing, predictive maintenance indicators, and real-time water and energy use data.

Internet of Things (IoT): Integrating everything under the management umbrella of campus facilities operations, operational technology (OT) in utilities, and internet-of-things (IoT) technologies can secure and enable “smart campus” efficiencies beyond utilities management. NAU’s ITS IoT Lab has been working on the development of new ideas such as Collaboration with Facilities Services. As a pilot project, “Smart Restrooms” help NAU monitor the use of restrooms throughout the campus in order to deploy custodial resources where there is the most need. In addition, the expansion occupancy opportunities to measure utilization of space, and smart outdoor lighting.

Indigenous Placekeeping drives the cultural interpretive strategy of the Plan.

Northern Arizona University has a long-standing history of honoring Indigenous Peoples in the university strategic plan by dedicating one specific goal to the Commitment to Indigenous Peoples. This goal includes the recognition of the unique sovereign status of Native Nations and the sacred land on which the university was built. It has the mission “to become the leading university serving Indigenous Peoples.”

Indigenous design strategies apply a triad as an indicator of outcomes to be achieved in the Indigenous design. There are three levels of meaning in the triad: identity, lifeways, and worldview (ways of knowing). All three ways should be understood in order to fully explain the dynamics of relationships between built environments and human behaviors:

- **Identity:** How does the Plan reflect the identity of the people?
- **Lifeways:** How does the Plan offer space for community life ways?
- **Ways of Knowing:** How does the Plan engage an Indigenous worldview?

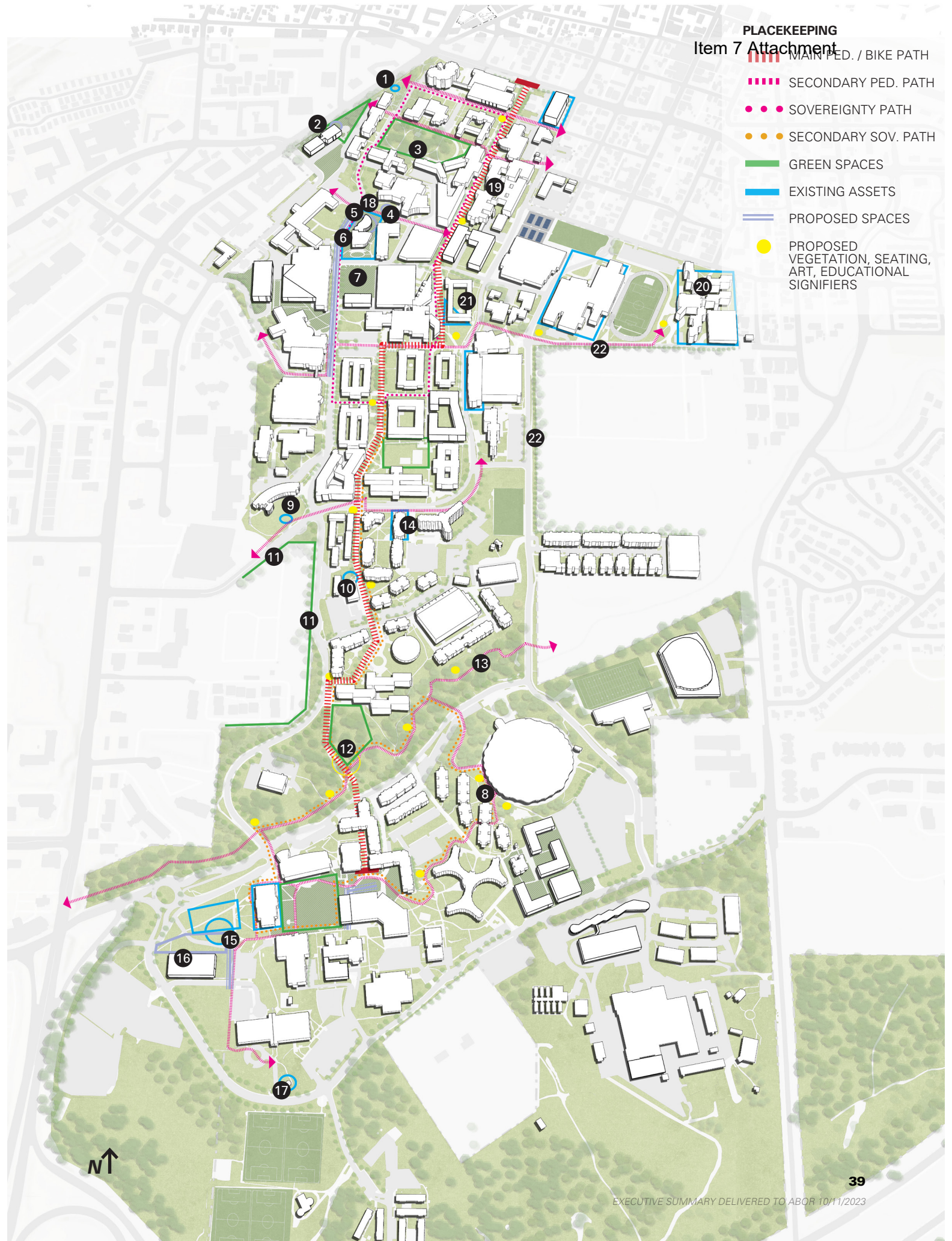
The Plan provides opportunities throughout the NAU campus to engage in local narrative, language, story teaching, art, ethnobotany, Indigenous identity, and more to honor the Ancestral presence and deep connection of the Indigenous Peoples to the land in which it is located. Some of these are shown in the Plan as spaces that are welcoming with natural materials, spaces that have a meaningful purpose, and places of outdoor education and native flora and fauna.

Indigenous Placekeeping on Campus

- 1 Existing Code Talker Statue
- 2 Proposed Indigenous Welcome Signage
- 3 Existing Little Tree Man Trail
- 4 Proposed Four Seasons gathering space
- 5 Proposed NACC expansion + Sweat Lodge
- 6 Existing Native American Cultural Center
- 7 Proposed Plaza and Gathering Lawn
- 8 Proposed Indigenous Banners and Signage
- 9 Enhanced NAU sign with Indigenous Elements
- 10 Existing International Pavilion
- 11 Proposed Cemetery Vegetation Visual Barrier
- 12 Proposed Walk of Nations
- 13 Proposed Sinclair Wash Enhancements
- 14 Existing Navajo Nation Archaeology Department
- 15 Re-imagined SSLUG Garden
- 16 Satellite Indigenous Lounge at South Campus
- 17 Enhanced Hogan
- 18 Relocated Institute for Tribal Environmental Professionals (ITEP)
- 19 Existing Grimm Tree Walk
- 20 Existing Indigenous Peoples Living-Learning Community at Mountain View Hall
- 21 Future Expansion Indigenous Peoples Living-Learning Community and Commons
- 22 Proposed Cemetery Vegetation Visual Barrier

PLACEKEEPING
Item 7 Attachment

-  MAIN PED. / BIKE PATH
-  SECONDARY PED. PATH
-  SOVEREIGNTY PATH
-  SECONDARY SOV. PATH
-  GREEN SPACES
-  EXISTING ASSETS
-  PROPOSED SPACES
-  PROPOSED VEGETATION, SEATING, ART, EDUCATIONAL SIGNIFIERS



Student life and campus living is a crucial asset for NAU, playing a significant role in student recruitment, retention, and community building.

The university recognizes that auxiliary operations, including housing, are essential for its long-term financial sustainability. This Plan acknowledges and aims to address deferred maintenance issues within existing housing over time. Overall student satisfaction with campus living is high, and there is a limited supply of affordable housing in the off-campus market, leading to a growing interest among upper-division students to return to on-campus living. This Plan and NAU explore the possibility of providing housing support for faculty and staff. The Plan assumes, based on a spring 2023 housing demand analysis, demand for up to 1,000 new apartment style beds with the need for renovations to existing buildings and taking certain buildings offline.

NAU has an adequate capacity, variety, and distribution of dining services across campus, which generate strong revenue for the University. However, there are infrastructure issues in the University Union's food service area, including kitchen size. The Du Bois Center renovation, 2017, was successful but additional capacity is still needed to serve a growing youth campus population. The University Union lacks student-oriented spaces such as lounges, study areas, and dedicated student organization spaces. This Plan suggests undertaking a comprehensive renovation of the University Union to address programmatic and aesthetic deficits. The future of additional dining options should consider the type and location of new housing developments. Another critical component of student life is

comprehensive wellness. This includes supporting students' mental and physical health with counseling resources and recreational spaces. Demand for counseling services has increased since the Covid-19 pandemic and is anticipated to continue to rise as stigma around receiving counseling decreases. The Plan proposes distributed counseling resources across campus to "meet students where they are" and make sure any and all students can get the help they need. These services are proposed within a new satellite recreation facility on South Campus. This facility will help alleviate competing demands from athletics and student recreational users that currently plague Rolle Activity Center.

"As a university that serves first generation college students as well as minorities, it is important to consider who NAU students are, and how the university is serving them to achieve their academic goals. Meeting basic needs is an essential component to academic success and overall wellbeing for students."

- NAU Faculty Member

Mixed Use Complex
200 Apartment Beds

- LEGEND**
- Item 7 Attachment
- EXISTING HOUSING
 - PROPOSED HOUSING
 - EXISTING DINING LOCATION
 - RENOVATED OR NEW DINING LOCATION
- DINING TYPES**
- MARKET/CONVENIENCE
 - GRAB AND GO RETAIL
 - TRADITIONAL
 - CAFE
 - FULL-SERVICE RESTAURANT

**Central Campus
Student Complex**
500 Apartment Beds

**South Campus
Housing Village**
500 Apartment Beds



Phase 01 Projects

Phasing was determined after meetings with the steering committee and university leadership and considered many factors, including prioritization, sequencing, swing space needs, cost assumptions, and funding opportunities. The Plan evaluates which buildings can alleviate high levels of deferred maintenance by renovation or replacement versus which buildings are worth re-investment and renovation.

Proposed demolitions consider many factors such as condition, buildings that are well below average (poor or critical), beyond the return on investment, and poor programmatic fit. Buildings that fit some of the previous list and that sit on sites that could increase density are also candidates for demolition.

Renovations were prioritized over demolition and replacement as a means to reduce embodied carbon caused by the need to replace an existing structure. Renovations are critical as NAU continues to address deferred maintenance.

Proposed new buildings were carefully considered. There is minimal space increase for academic and administrative functions. A core tenant of the planning was no new space added without purpose. The expansion of space is centered around a need for additional study, lounge, wellness, housing, and dining to better support the student experience.

Partnership sites are located at the edges of campus. These sites are nimble but should support ideas that bring community and industry onto campus.

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

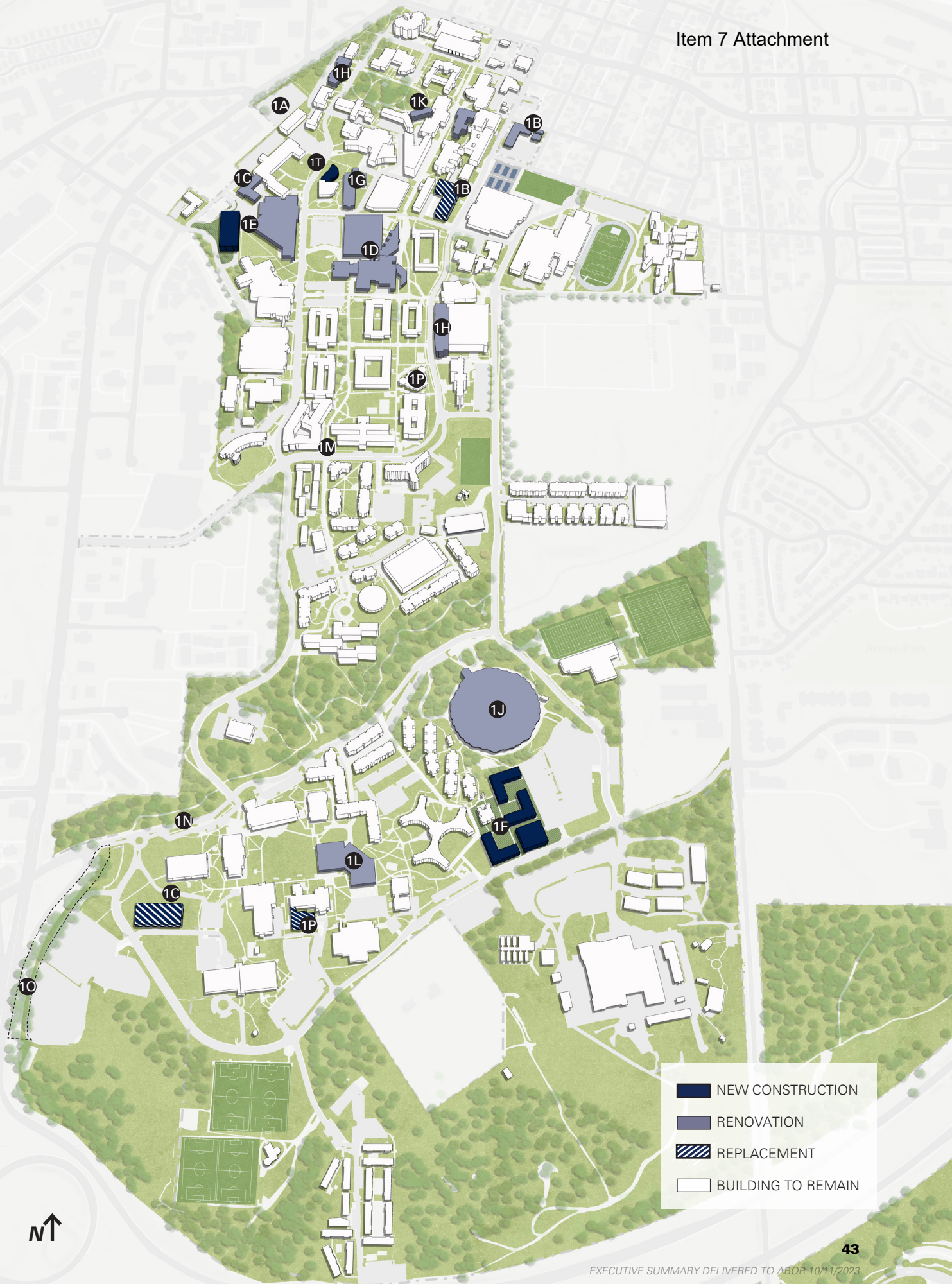
	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
1A	Milton Property Demo	Demolition	16,500		
1A	Indigenous Welcome Signage	Gateway Improvements			
1A	Milton Edge Open Space	Open Space and Landscape			
1B	Peterson Hall	Demolition	39,439		
1B	Interdisciplinary Science and Academic Complex (ISAAC)	New Construction			100,000
1B	Bury Hall - Swing Space	Swing Space Renovation		17,470	
1B	Beaver Street School	Renovation		30,271	
1C	Huffer Lane Facility	Demolition	5,220		
1C	Social and Behavioral Sciences	New Construction			108,000
1C	Institute of Human Development*	Swing Space Renovation		12,642	
1C	E-W Connection - State Trust Land to South Quad	Open Space and Landscape			
1C	South Quad Improvements	Open Space and Landscape			
1D	University Union Dining Services	Major Renovation		127,575	
1D	University Union Fieldhouse	Renovation		45,000	

TABLE LEGEND

- DEMOLITION
- OPEN SPACE/ LANDSCAPE
- RENOVATION
- NEW BUILD/ REPLACEMENT
- CIRCULATION
- INFRASTRUCTURE

Continued on page 44

* Indicates Secondary Effect Renovation Project
** Historically Sensitive Renovation
+ Does not include new parking structures



Phase 01 Projects

Continued from page 42

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
1D	University Union Food Court	Renovation		24,767	
1D	University Union Student Services	Renovation		24,354	
1D	E-W Connection - Cline to HLC	Open Space and Landscape			
1E	Cline Library	Major Renovation		211,312	
1E	Cline Library Parking (400)	Parking Structure			128,000
1F	South Campus Apartments	New Construction			204,000
1F	South Community + Wellness	New Construction			20,300
1F	South Campus Resident (345)	Parking Structure			96,000
1G	Adel Mathematics	Major Renovation		43,488	
1H	Gammage**	Major Renovation		43,684	
1H	Student Academic Services	Interior Renovation		111,915	
1J	J. Lawrence Walkup Skydome	Building Upgrades		254,360	
1L	DuBois Ballroom	Interior Renovation		92,946	
1M	Pedway Landscape Improvements	Open Space and Landscape			
1N	McConnell Drive Improvements	Circulation			
1O	I-17 Edge Gateway Signage + LS	Circulation			
1P	Nursing Replacement Building	New Construction			34,500
1T	Native American Cultural Center	Addition			23,400
1AA	Physical Sciences Building	Major Renovation		51,318	
1BB	Babbitt Academic Annex	Demolition	39,033		
1CC	Interconnect North and South Heating Systems	Infrastructure			
1CC	Conversion of South Campus Plant to Low Temperature Hot Water	Infrastructure			
1CC	Conversion of buildings from local heating systems to a centralized heating system	Infrastructure			
1CC	Deep Energy Retrofits by building	Infrastructure			
1CC	Electrify On Campus Commercial Kitchens	Infrastructure			
Totals			(100,192) GSF	1,091,102 GSF	+ 490,200+ GSF

Phase 01 Total Project Costs: \$846,357,000

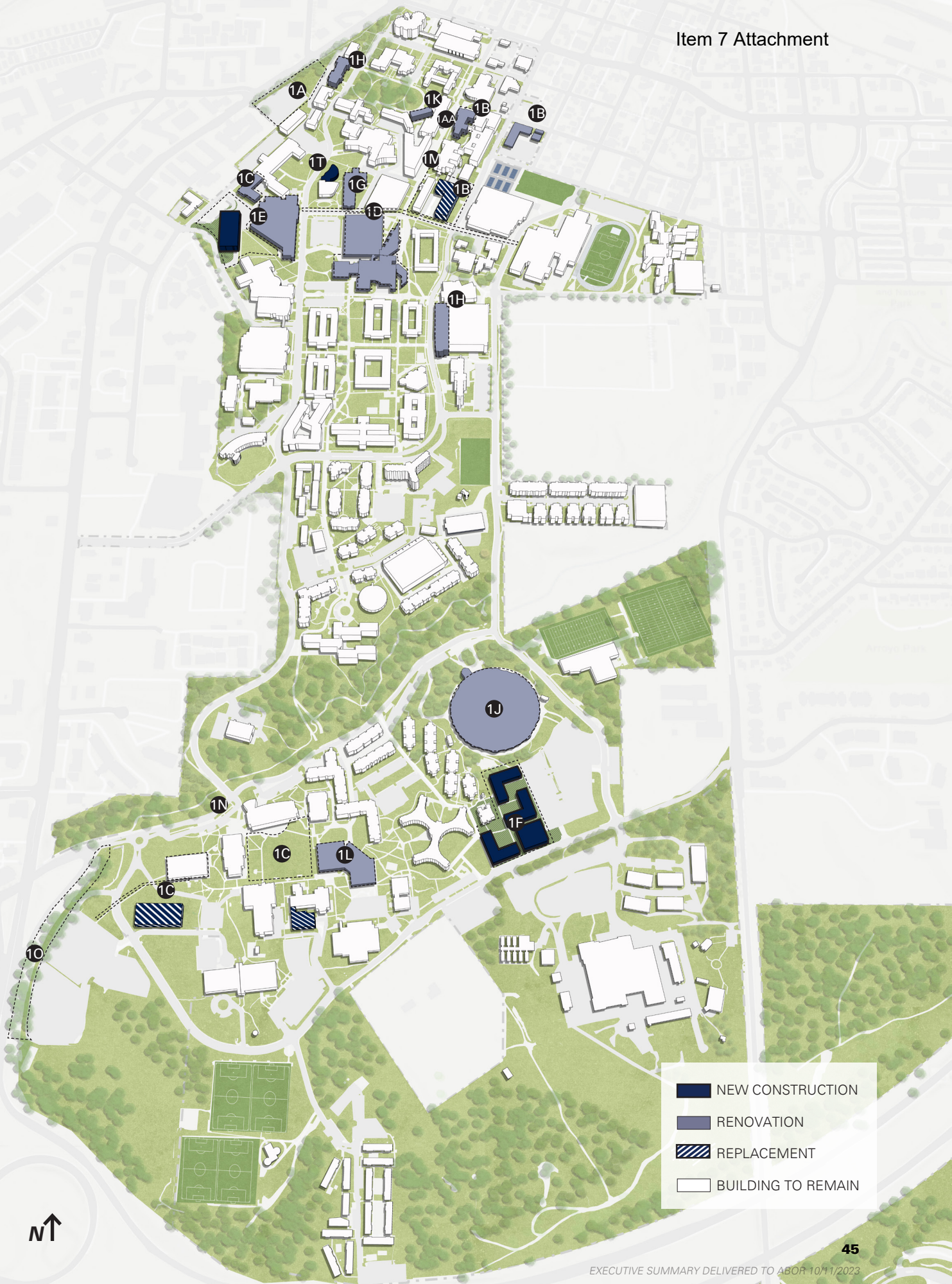
Cost Estimates are total project cost, based on 2023 dollars (no escalation), and based on rough order of magnitude costs per square foot.

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

+ Does not include new parking structures

TABLE LEGEND
DEMOLITION
OPEN SPACE/ LANDSCAPE
RENOVATION
NEW BUILD/ REPLACEMENT
CIRCULATION
INFRASTRUCTURE



Phase 02 Projects

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
2A	Geology Annex	Demolition	7,904		
2A	Milton Community Building	New Construction			28,800
2A	Milton Entry/Riordan Ranch	Circulation			
2A	Roseberry Apartments	Demolition	34,558		
2B	Geology **	Major Renovation		22,559	
2C	SBS West	Demolition	71,312		
2C	Raul H Castro SBS	Major Renovation		63,321	
2D	Student Services Pavilion	New Construction			39,000
2D	Pedestrianize Knoles Drive	Circulation			
2D	E-W Connection - Performing Arts to Bookstore	Open Space and Landscape			
2D	Library Plaza	Open Space and Landscape			
2E	Cline Library Expansion	Addition			58,800
2E	Riordan Rd Edge Gateway Signage + Landscape	Gateway			
2H	Babbitt Admin Center*	Interior Renovation		29,423	
2H	Student Academic Services*	Interior Renovation		111,915	
2J	J Lawrence Walkup Skydome	Building Upgrades		254,360	
2P	Nursing Building	Demolition	19,696		
2P	E-W Connection - South Quad to East of DuBois	Open Space and Landscape			
2S	DuBois Student Center	Addition			18,000
2U	Old Main **	Renovation		31,259	
V	Citizens Cemetery - Vegetation Visual Barrier	Open Space and Landscape			
W	Calvary Cemetery - Vegetation Visual Barrier	Open Space and Landscape			
2BB	Arts + Letters Ph. 2	New Construction			78,800
2BB	Academic Annex	Demolition	3,600		
2CC	Implement Biomass or Geothermal	Infrastructure			
2YY	Biological Sciences	Major Renovation		86,964	
Totals			(137,070) GSF	499,801 GSF	+ 223,400 GSF

TABLE LEGEND

DEMOLITION

OPEN SPACE/
LANDSCAPE

RENOVATION

NEW BUILD/
REPLACEMENT

CIRCULATION

INFRASTRUCTURE

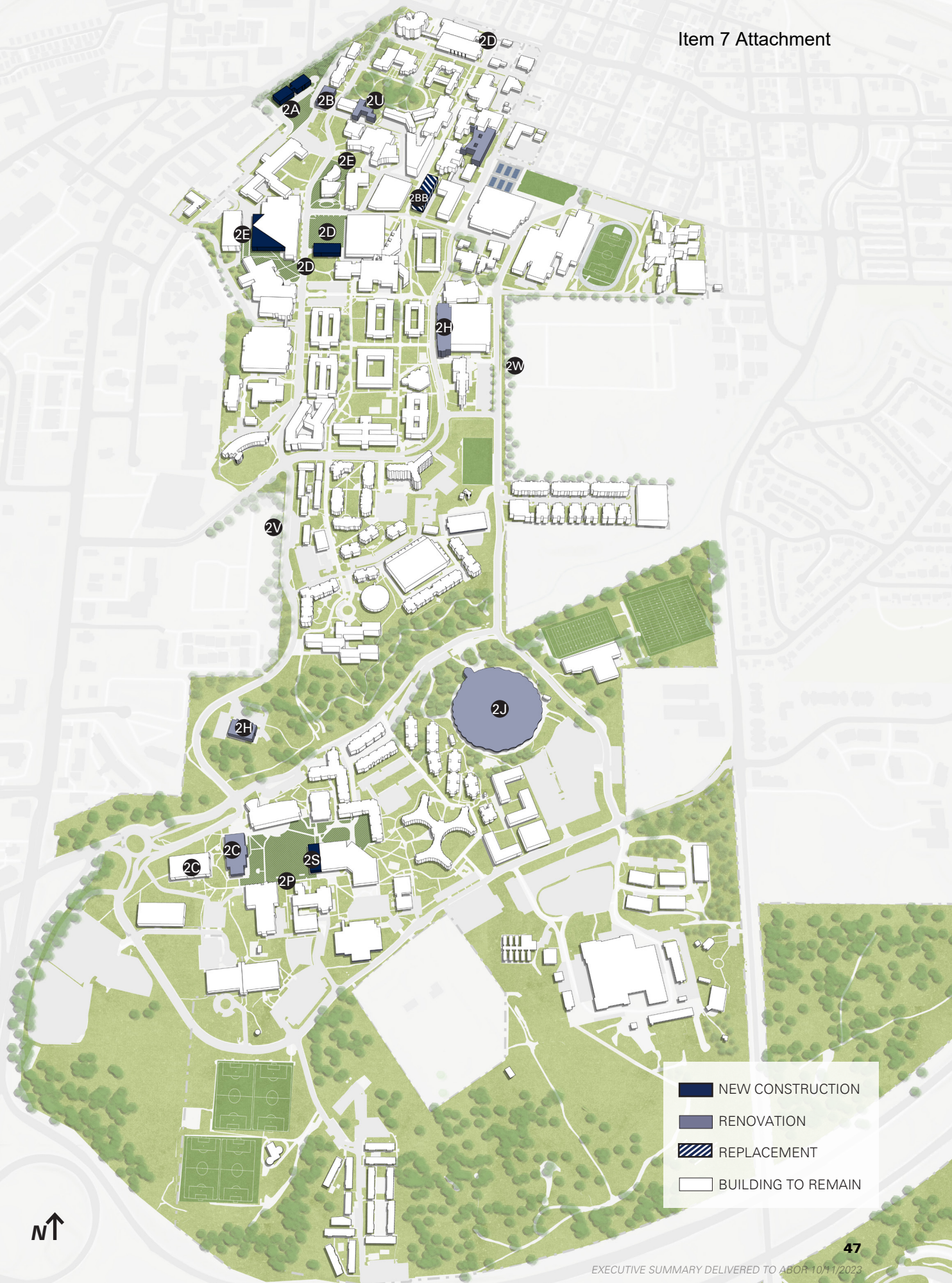
Phase 02 Total Project Costs: \$447,141,000

Cost Estimates are total project cost, based on 2023 dollars (no escalation), and based on rough order of magnitude costs per square foot.

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

+ Does not include new parking structures



Phase 03 Projects

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
3D	University Union Fieldhouse	Renovation		88,019	
3K	Facility Services	Addition			17,000
3K	Facility Services	Major Renovation		127,981	
3P	Health Professions	Renovation		59,826	
3Q	Engineering Addition (location TBD)	Addition			20,000
3Q	ROTC	Renovation		25,182	
3R	Lone Tree Edge Gateway Signage + Landscape	Circulation			
3R	Transportation Center + Garage	Parking Structure + Circulation			200,000
3R	E-W Connection - east of DuBois to Kinsey + HPC	Open Space and Landscape			
3X	Butler Office Building	Demolition	9,195		
3X	Humphreys Office Building	Demolition	2,177		
3X	Printing Services	Demolition	5,111		
3X	Northend Mixed-Use Building	New Construction			105,000
3X	Pedestrianize Humpherys Road	Circulation			
3X	Bulter Edge	Open Space and Landscape			
3Y	Gateway Success Center	Demolition	16,662		
3Y	Central Campus Apartments	New Construction			220,000
3Y	Central Quad Improvements	Open Space and Landscape			
3Y	Pedway Improvements	Open Space and Landscape			
3Z	East-West Connection	Open Space and Landscape			
3Z	Sinclair Wash Improvements	Open Space and Landscape			
3Z	FUTS Trail Connections	Open Space and Landscape			
3DD	Rolle Activity Center	Renovation		47,697	
3EE	Eastburn Education Center	Renovation		78,047	
3FF	Multi-Purpose Arena	New Construction			200,000
Totals			(33,145) GSF	426,752 GSF	+ 562,000* GSF

TABLE LEGEND

DEMOLITION

OPEN SPACE/
LANDSCAPE

RENOVATION

NEW BUILD/
REPLACEMENT

CIRCULATION

INFRASTRUCTURE

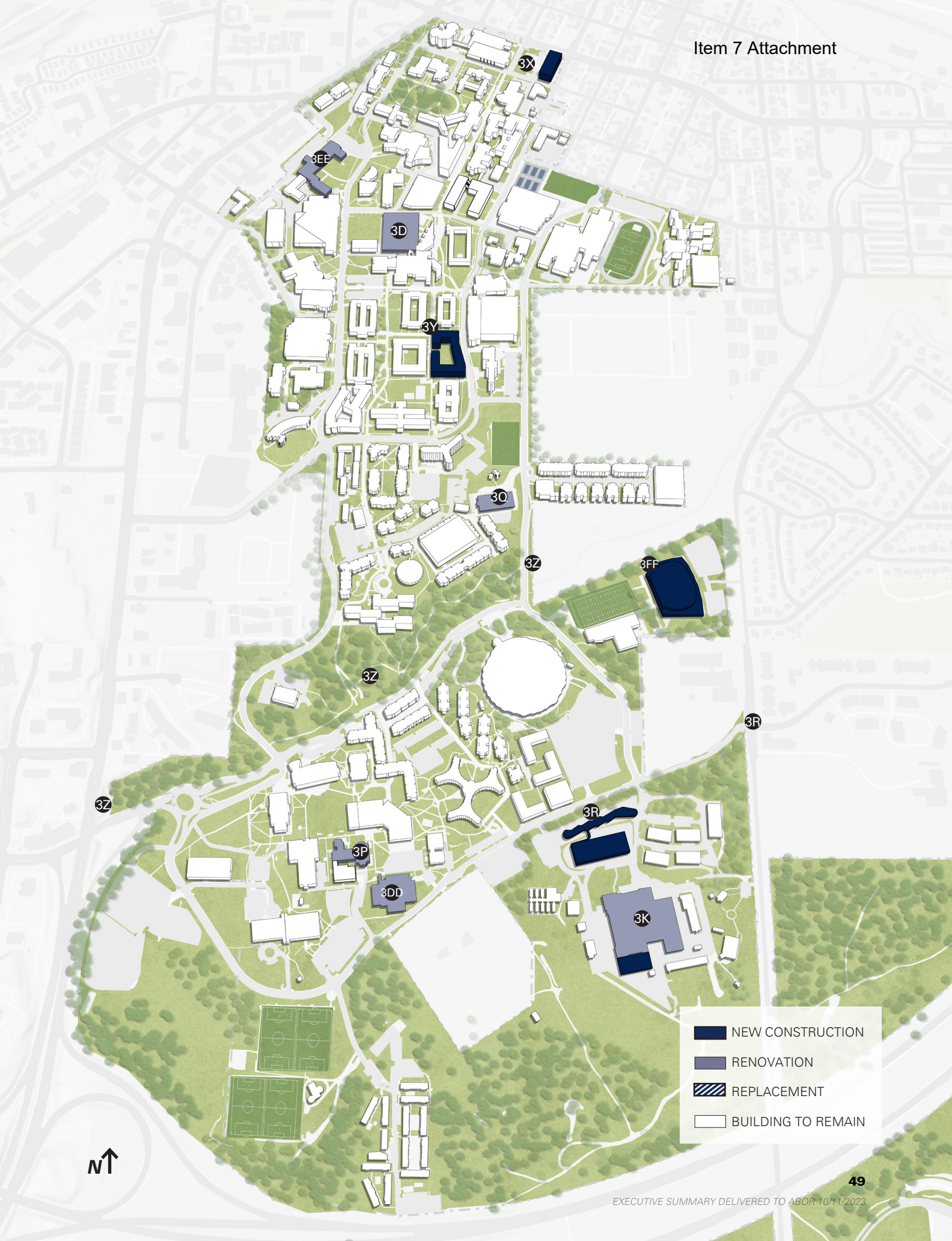
Phase 03 Total Project Costs: \$679,291,000

Cost Estimates are total project cost, based on 2023 dollars (no escalation), and based on rough order of magnitude costs per square foot.

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

+ Does not include new parking structures



- NEW CONSTRUCTION
- RENOVATION
- REPLACEMENT
- BUILDING TO REMAIN

NAU

 **DLR GROUP**

EXECUTIVE SUMMARY

Item Name: **Review of Acquisition of 1115 E. Helen Street, Tucson for the University of Arizona**

☒ Action Item

Requested Action: The University of Arizona (UArizona) asks the Committee to review and recommend forwarding to the board for approval the purchase of the residential real property located at 1115 E. Helen Street, Tucson, Pima County, Arizona, for \$1,875,000, as described in this executive summary.

Background/History of Previous Board Action

- The property parcel located at 1115 E. Helen Street (the “Property”) is a privately-owned residential income property that has been developed as multi-tenant housing. Legal description and maps of the Property are attached as Exhibit “A.”
- The Property is a 9,750 square foot parcel with a 3,562 square foot, two-story multi-tenant residential building with 9 bedrooms and 7 bathrooms owned by 1115 Helen Street, LLC, which is also the seller.
- The Property is in the northwest area of campus, within UArizona’s planning boundary, and is one of the last privately owned parcels located on the block primarily owned by UArizona.

Discussion

- UArizona secured two appraisals for the Property that support the purchase price of \$1,875,000. The appraisals reflect the market values of residential income properties located in and about the UArizona Campus Planning Area.
- Acquiring the Property at this time will enhance UArizona’s ability to strategically plan for future use and development in the area.

Statutory/Policy Requirements

- ABOR Policy 7-201(B)(1) requires prior review by the University Governance and Operations Committee and board approval of any real property acquisitions if the purchase price exceeds \$1,000,000.
- ABOR Policy 7-201(F) requires that two appraisals be obtained for any purchase with an anticipated sale price of \$1,000,000 or more.

Contact Information:

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520-621-5977

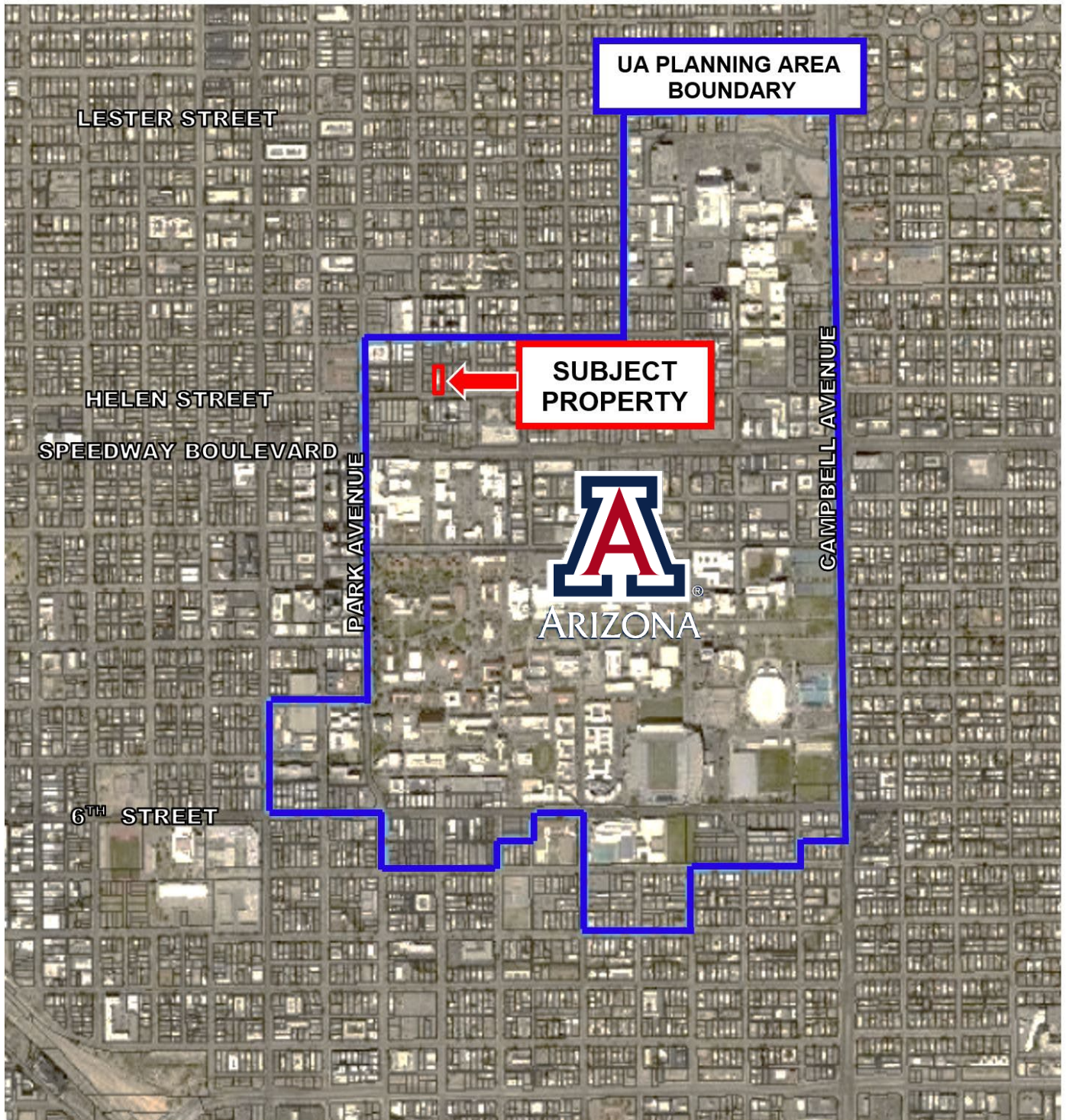
EXECUTIVE SUMMARY

EXHIBIT "A"
LEGAL DESCRIPTION

Lot 11 in Block 5 of BUENA VISTA ADDITION, according to the Plat recorded in the office of the County Recorder of Pima County, Arizona, in Book 1 of Maps at page 20.



EXECUTIVE SUMMARY



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Adoption of Minutes

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DRAFT
ARIZONA BOARD OF REGENTS
Minutes of the University Governance and Operations Committee
Thursday, September 14, 2023

A meeting of the Arizona Board of Regents University Governance and Operations Committee meeting was held on September 14, 2023, at Arizona State University.

Members Present: Regent Mata, (Chair) (via video), Regent Pacheco, (Vice Chair), Regent Manson, Regent Brewster, Regents Goodyear (departed at 3:30pm), Regent Zaragoza, and Regent DuVal (ex-officio).

Also present were: Regents Penley, Regent Herbold (via video), and Regent Reese (via video), from the Board Office: Director Arnold, Chad Sampson, Mark Denke, Jennifer Pollock, Samantha Blevins, Kevin Smith, Suzanne Templin, Rachel Malefors, Brad Kendrex, Sarah Harper, Leatta McLaughlin, Gale Tebeau, Jane Kuhn, Andrew Comrie, Page Gonzales, Tom Merriam, Ken Polasko, (via video) Claudia Martinez and Debbie Sale; from Arizona State University: President Crow, Christine Wilkinson, Provost Gonzales, Morgan Olsen, Dan Dillon, Penny Dolin, and Anne Jones and from Northern Arizona University: Provost Pugliesi, Laurie Dickson, Bjorn Flugstad, John Gagliardi and John Georgas (via video) and from the University of Arizona: President Robbins, Provost Marx, Jon Dudas, Greg Heileman, Kody Kelleher, and Laura Todd Johnson.

All lists, reports, summaries, background material and other documents referred to in the minutes can be found in the September 14, 2023, Document File, and the board's website.

CALL TO ORDER

Regent Pacheco called the meeting to order at 12:15 p.m. She announced that she would chair today's meeting for Regent Mata, who attended the meeting via video.

Upon motion by Regent Manson, seconded by Regent Brewster, the committee approved convening in executive session to discuss the items on the executive session agenda. Regents Mata, Pacheco, Manson, Brewster, DuVal, and Zaragoza voted in favor. None opposed and none abstained. The motion carried.

RECESS

The committee recessed public session at 12:20 p.m.

EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.03(A), the committee convened in executive session at 1:02 p.m. in the Executive Conference Room to discuss items identified on the executive session agenda.

Executive Session recessed at 1:58 p.m.

RESUME PUBLIC MEETING, GREETINGS AND ANNOUNCEMENTS FROM THE COMMITTEE CHAIR

Regent Pacheco reconvened the public session at 2:01 p.m. She turned it over to Regent Mata, who welcomed all to the first University Governance and Operations Committee Meeting. The committee will merge the operational items from the Academic Affairs, Business and Finance, and Research and Health Sciences Committees. She then turned the meeting back over to Regent Pacheco.

ADOPTION OF CONSENT AGENDA ACTION ITEMS AND ACCEPTANCE ON CONSENT INFORMATION ITEMS

All items on the Consent Agenda are marked with an asterisk (*). Regent Pacheco asked the committee members if they had any conflict to declare. No conflicts were declared.

Upon motion by Regent Pacheco, seconded by Regent Manson, the committee approved forwarding to the full board for approval items 9-10; 12-15; and 17-21 as listed on the Consent Agenda. Regents Mata, Pacheco, Manson, Brewster, Goodyear, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried.

CONSENT AGENDA

These items were considered and approved by a single motion with no discussion.

***Approval of Minutes (Item 9)**

The committee reviewed and approved the public and executive session minutes from the June 1, 2023, Academic Affairs and Educational Attainment and Finance, Capital and Resources Committee Meetings and the November 3, 2022, Research and Health Sciences Committee Meeting.

ACADEMIC AFFAIRS

***Request for New Academic Organizational Unit for Arizona State University (Item 10)**

The committee reviewed and recommended forwarding to the board for approval Arizona State University's new academic organizational unit request effective in the 2023-2024 catalog year.

ITEM 11 WAS MOVED TO THE REGULAR AGENDA

***Request for New Academic Programs and Credit Exception for Northern Arizona University (Item 12)**

The committee reviewed and recommended forwarding to the board for approval Northern Arizona University's new academic program requests and a credit exception.

***Request for New Academic Organizational Unit for The University of Arizona (Item 13)**

The committee reviewed and recommended forwarding to the board for approval the University of Arizona's new academic organizational unit request effective in the Fall 2024 semester.

***Request for Novel Combination of an Existing Degree and an Existing Location within Arizona for the University of Arizona (Item 14)**

The committee reviewed and recommended forwarding to the board for approval the University of Arizona's novel combination of two existing degree programs at an existing location within Arizona.

***Request for New Academic Program for the University of Arizona (Item 15)**

The committee reviewed and recommended forwarding to the board for approval the University of Arizona's new academic program request for the Fall 2023 semester.

ITEM 16 WAS MOVED TO THE REGULAR AGENDA

BUSINESS, FINANCE AND CAPITAL

***Review of FY 2025-FY 2028 Capital Improvement Plan for Arizona State University (Item 17)**

The committee reviewed and recommended forwarding to the board for approval Arizona State University's FY 2025 – 2028 Capital Improvement Plan (CIP), which includes seven FY 2025 first-year projects totaling \$463,125,000.

***Review of FY 2025-FY 2028 Capital Improvement Plan for Northern Arizona University (Item 18)**

The committee reviewed and recommended forwarding to the board for approval Northern Arizona University's FY 2025 – 2028 Capital Improvement Plan, which includes four first-year projects, totaling \$50,000,000.

***Review of FY 2025-FY 2028 Capital Improvement Plan for the University of Arizona (Item 19)**

The committee reviewed and recommended forwarding to the board for approval the University of Arizona's FY 2025 - 2028 Capital Improvement Plan, which includes three (3) FY 2025 first-year projects totaling \$400,000,000.

***Novus® 2023 Annual Report for Arizona State University (Item 20)**

The committee reviewed and recommended forwarding to the board Arizona State University's Novus Innovation Corridor® annual report, in accordance with the reporting process approved by the board in September 2017.

RESEARCH AND HEALTH SCIENCES

***Request for Approval of FY 2024 Regents' Research Grants (Item 21)**

The committee reviewed and recommended forwarding to the board for approval the FY 2024 Regents' Research Grants.

ACADEMIC AFFAIRS

Presentation and Discussion of Employer and Student Attitudes Toward Online Degrees and Degree Programs (Item 1)

Dan Dillon, CEO, ASU Enterprise Partners presented on employer and student attitudes toward online degrees and degree programs. President Crow took a moment to introduce Mr. Dillon to the committee.

Regent Pacheco stated that the committee had reviewed the report and asked Mr. Dillon to highlight points that stood out, to assist the regents as they evaluate attitudes, and potential risks and benefits of the online degree programs.

Mr. Dillon highlighted results pertaining to the impact of the university brand, and employer attitudes toward hiring and salary decisions.

An insight from the research was there was a conscious or unconscious bias in the results based on where the respondent earned his or her degree, on campus or online. Regent Pacheco asked if the same concept played out demographically. Mr. Dillon answered, yes, the age of the respondents also influenced how the questions were answered. Mr. Dillon also pointed out that with the growth of hybrid and online degrees, employer sentiment will likely continue to change to a point where it will no longer be a factor in hiring.

Regent Penley asked about findings associated with interpersonal skills, communication skills and team skills. Mr. Dillon answered that the survey showed there is a belief that in person offers a better opportunity to develop those soft skills; however, 70 percent of the respondents were employers who earned their degrees on campus.

Provost Gonzales added that developing those skills in the online students is a major part of how ASU develops their online programs. Students connect with each other, and the programs are evolving rapidly.

President Robbins asked if there was data for students who choose to take most of their classes online, but they want to live on campus. Mr. Dillon said that 60 percent of ASU students take at least one online class. A discussion ensued that differentiated on campus,

online students, and on campus students taking in person classes and some online classes (icourses).

Regent Herbold asked if an on-campus student took an icourse, would that be the same course that a fully online student would take. Provost Gonzales and President Crow answered that it would be same course, objectives, learning outcomes, and the same material, but the modality may have slightly different approaches.

This was a discussion item; no action was taken.

Arizona State University's General Education Program Update (Item 2)

Provost Gonzales and Vice Provost Anne Jones, ASU, provided an update on Arizona State University's general education program.

The board approved ASU's new general education framework in April of 2022 and ASU has since been working with faculty toward the goal of launching the new curriculum in the 2024/2025 academic year.

Regent Mata asked what level of implementation there will be in fall 2024. Vice Provost Jones answered that the existing class search tool used to register for classes will be modified to show both the existing system and the new system so that new students can register in Fall of 2024.

Existing students can continue to take classes in the program that they are already part of.

Regent Pacheco asked if a first-year student registering next year will be on the new track. Vice Provost Jones answered that they will have access to those courses but will not be obligated to take them in fall of next year because ASU must modify all the degree requirements as they have already been set for fall of next year. Regent Pacheco asked if there were other ways to accomplish this so the new curriculum would be available next fall. Vice Provost Jones and President Crow said that there is a very specific cycle directed by accreditors as to when the degree requirements can be modified.

Regent Penley asked when the committee would be able to see the crosswalk, or the relationship between courses and knowledge areas.

Provost Gonzales said the faculty senate must approve the plan. Then new courses will be built out and existing ones will have to be realigned so they qualify for the new knowledge areas.

Regent Manson expressed disappointment in how long the process has taken.

Provost Gonzales stated that ASU did not intend to convey a disregard for the project and that ASU is addressing the substantial change for the university so that many students will be able to enroll of the type of courses that the board has described in policy.

Regent Brewster asked when the dual path will end and there will be only one curriculum for all students. Vice Provost Jones said that they continue to honor community college transfer curriculum from the current system, but new first-year students coming in will be required to enter the new system by the 2025-2026 academic year.
This was a discussion item; no action was taken.

BUSINESS, FINANCE AND CAPITAL

Review of Annual Capital Plan, Including Waiver of ABOR Policy Requiring ACP Projects to Appear on a Previous Capital Improvement Plan for Arizona State University (Item 3)

Morgan Olsen, Executive Vice President, Treasurer and CFO, ASU, presented a review of Arizona State University's Annual Capital Plan (ACP), which includes one new project and one resubmitted project for a total of \$39.3 million.

Regent Mata thanked Dr. Olsen for the explanation of the resubmitted \$17.3 million Polytechnic Utilities Expansion project that was included in last year's ACP.

Penny Dolin, AFC Chair, ASU asked about plans to alleviate parking challenges at the Polytechnic Campus, and Dr. Olsen addressed some of the plans.

Upon motion by Regent Pacheco, seconded by Regent Manson, the committee approved forwarding to the full board for approval Arizona State University's Annual Capital Plan, including waiver of board policy requiring Annual Capital Plan projects to appear in a previous Capital Improvement Plan, as described in the executive summary. Regents Mata, Pacheco, Manson, Brewster, Goodyear, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried.

Review of Annual Capital Plan for Northern Arizona University (Item 4)

Bjorn Flugstad, Senior Vice President for University Operations and CFO University Budget Office, NAU, presented a review of Northern Arizona University's Annual Capital Plan, which does not include any new projects.

Upon motion by Regent Pacheco, seconded by Regent Brewster, the committee approved forwarding to the full board for approval Northern Arizona University's Annual Capital Plan as described in the executive summary. Regents Mata, Pacheco, Manson, Brewster, Goodyear, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried.

Review Of Annual Capital Plan for The University Of Arizona (Item 5)

Lisa Rulney, Senior Vice President for Business Affairs and CFO, UArizona, presented a review of the University of Arizona's Annual Capital Plan, which includes no new projects and five resubmitted projects for a total of \$127.9 million.

Upon motion by Regent Pacheco, seconded by Regent DuVal, the committee approved forwarding to the full board for approval the University of Arizona's Annual Capital Plan as described in the executive summary. Regents Mata, Pacheco, Manson, Brewster, Goodyear, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried.

Discussion of Revisions to ABOR Information Technology and Security Policies and Information Technology Guidelines (Item 6)

Bradley Kendrex, Vice President, Finance and Administration, ABOR, presented on revisions to ABOR Information Technology and Security Policies and Information Technology Guidelines. The intent was to lay out a sketch of what has been discussed in terms of updating the policy framework, and then invite the board and universities to have input on which aspects should be in future policy language. President Crow said that the university must have the ability to adjust quickly to technology changes, which then might only be operational for a few years and then be of little or no net material advantage going forward. His hope is that the board perform fiduciary oversight while still allowing the universities to engage rapidly with the changes.

Regent Mata agreed with President Crow's comment and encouraged the committee and board to provide support and remain engaged in these issues.

This was a discussion item; no action was taken.

Review Of Proposed Revisions to ABOR Policies Chapter 6, Article F, "Retirement and Benefit Plans" 6-601 "Retirement Plans," 6-602 "Optional Retirement Program," 6-603 "Voluntary 403(B) Program," 6-604 "Benefit Plans," 6-608 "Cash Balance Pension Plan" and Proposed New ABOR Policy 6-610 "Arizona University System Supplemental Retirement Plan & 415(M) Qualified Excess Benefit Arrangement" (First Reading)
(Item 7)

Kevin Smith, Associate General Counsel, ABOR, presented proposed revisions to ABOR Policies Chapter 6, Article F, "Retirement and Benefit Plans," Policies 6-601, 6-602, 6-603, 6-604, 6-608 and the creation of new ABOR Policy 6-610.

Upon motion by Regent Pacheco, seconded by Regent Manson, the committee approved forwarding to the board for first reading of proposed revisions to ABOR Policies Chapter 6, Article F, "Retirement and Benefit Plans," Policies 6-601, 6-602, 6-603, 6-604, 6-608, and the creation of ABOR Policy 6-610 as described in the executive summary. Regents Mata, Pacheco, Manson, Brewster, Goodyear, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried.

Approval of Northern Arizona University's One-Year Extension to the Multiple-Year Contract for Head Men's Basketball Coach (Item 8)

Bjorn Flugstad, Senior Vice President for University Operations and CFO University Budget Office, NAU, presented Northern Arizona University's request for a one-year extension to the multiple-year employment contract for the head men's basketball coach.

Upon motion by Regent Pacheco, seconded by Regent Brewster the committee approved forwarding to the full board for approval a one-year extension to the multiple-year employment contract for Shane Burcar as Head Men's Basketball Coach at Northern Arizona University. Regents Mata, Pacheco, Manson, Brewster, Goodyear, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried.

Request for New Academic Programs for Arizona State University (Item 11)

Provost Nancy Gonzales, ASU, presented Arizona State University's request for new academic programs which are related to the recent addition of ASU Fashion Institute of Design and Merchandising (FIDM) to ASU's California Center to advance the Herberger Institute of Design and the Arts. ASU added that the associate of arts (AA) degrees will provide pathways for students to complete baccalaureate degrees.

Regent Manson stated that this is a larger issue than approving three AA degrees. Previously the board approved AA degrees for ASU in conjunction with the US Navy, but that was discussed as an exception.

President Crow said that most students in fashion are associate degree students. In order to launch a world class fashion program, and to connect to the industry in LA, they must continue with the students that are already in the pipeline. The goal is not to evolve into an associate's degree focused institution, but it is a starting position into the market, and also offers the path to a bachelor's degree.

Regent Mata asked about the timeline to offer the associate's degree in Arizona. Provost Gonzales said there is no plan to do so at this time. Regent Brewster asked if there are any community colleges that offer similar degrees. Provost Gonzales answered that Mesa Community College offers an Associates of Applied Science in Fashion Design and Merchandising, but it is not a pathway into a typical bachelor's degree. ASU's AA, which will only be offered in LA, and is the only degree with a pathway to a bachelor's degree.

Regent Manson requested two modifications in the motion. One would be that the committee recommends the board approve the AA programs only in Los Angeles, and the other is that ASU reports back how many students are going forward to pursue their bachelor's degree.

Regent Herbold said that this is an issue that will continue to come up, and the board will eventually have to question the entire associate's degree issue.

Upon motion by Regent Pacheco, seconded by Regent Mata the committee approved forwarding to the board for approval Arizona State University's request for new academic programs, with Regent Manson's stipulation limiting the geographic site to Los Angeles and a report back provision for new academic programs relating to the AA degrees, as described in the executive summary. Regents Mata, Pacheco, Manson, Brewster, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried. Regent Goodyear was not present for the vote. Regent Herbold, who does not sit on the committee, expressed that he did not support the motion.

Request for New Academic Locations Outside of Arizona for the University Of Arizona
(Item 16)

Provost Ron Marx, UArizona presented the University of Arizona's request for new academic locations outside of Arizona.

Regent Mata added that Saudi Arabia and the United States have a strong economic relationship and having this program there will enhance student opportunities.

Upon motion by Regent Pacheco, seconded by Regent Manson, the committee approved forwarding to the full board for approval the University of Arizona's request for new academic locations outside of Arizona as described in the executive summary. Regents Mata, Pacheco, Manson, Brewster, Zaragoza, and DuVal voted in favor. None opposed and none abstained. The motion carried. Regent Goodyear was not present for the vote.

ADJOURNMENT

The meeting was adjourned at 3:51 p.m.

Submitted by:

Debbie Sale
Committee Secretary

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EXECUTIVE SUMMARY

Item Name: Request for New Academic Organizational Unit for Arizona State University

☒ Action Item

Requested Action: Arizona State University (ASU) asks the committee to review and recommend for board approval the new academic organizational unit request effective in the 2024-2025 catalog year, as described in this executive summary.

Background/History of Previous Board Action

As provided in the board policy, new academic unit requests may be submitted throughout the year with the approval of the University Governance and Operations Committee.

Discussion

To support ABOR's AZ Healthy Tomorrow plan to rapidly grow the health care workforce in Arizona, the School of Public Health Technology is part of the overall ASU Health strategy around creating a learning health ecosystem – one that focuses on technology to improve health outcomes and create opportunities in innovation, research, education and entrepreneurship in the state.

The school will initially house both a BS and an MS in Public Health Technology – transdisciplinary programs that will train students in competencies of public health while incorporating STEM concepts, with an emphasis on one or more technology and engineering fields, to offer innovative solutions to protecting and improving the health of people and their communities.

Statutory/Policy Requirements

ABOR Policy 2-223 “Academic Locations, Degree Programs and Organizational Units”

Contact Information:

Nancy Gonzales, ASU
Chad Sampson, ABOR

nancy.gonzales@asu.edu
chad.sampson@azregents.edu

480-965-9585
602-229-2512

EXECUTIVE SUMMARY**Request to Establish a New Academic Organizational Unit****University: Arizona State University****Name of Organizational Unit:**

School of Public Health Technology

Academic Department:

The name of the academic department or college in which the organizational unit will be located

N/A

Geographic Site:

The physical site (campus, extended campus, etc.) where the organizational unit will be located

Tempe, West, Polytechnic, Downtown Phoenix campuses

Proposed Inception Term:

The term and year in which the new organizational unit will begin operating

Spring 2024

Brief Description:

The School of Public Health Technology launches ASU into an emerging field and will function as a transdisciplinary unit designed to advance innovative ideas in education, research, entrepreneurship and innovation related to public health. The goal is for the school to drive transformational change at the state level, which can then be scaled nationally and globally. The new school was designed by working with national academic, government and industry leaders who examined the education needs in public health technology.

The new school will provide an academic home for interdisciplinary public health technology as an emerging field and align ASU's efforts to expand impactful programs to a diverse population. The school will house the proposed BS in Public Health Technology and the MS in Public Health Technology. The degrees will feature a transdisciplinary core curriculum which includes epidemiology, health information systems, disease surveillance and monitoring, environmental health, policy and ethics, health data and statistics, behavioral and social sciences, business and entrepreneurship, health communications and education, and the assessment and development of health technologies. The school will bring together faculty from a variety of disciplines to train students in competencies of public health while incorporating STEM concepts with an emphasis on technology and engineering to offer innovative solutions to protecting and improving the health of people and their communities.

Public health technology is an emerging field that combines the application of technology with the principles of public health to improve the health of communities and populations. It

EXECUTIVE SUMMARY

involves the use of various tools and strategies to collect, manage, and analyze data on public health issues, to design and implement interventions that can prevent and control diseases, and to educate and inform individuals and communities about health risks and healthy behaviors.

Examples of public health technologies include electronic health records, disease surveillance systems, health information systems, telemedicine, geographical information systems, mobile health applications, machine learning, extended reality, wastewater monitoring, environmental sensors, online health education platforms and more. Understanding how to effectively and innovatively apply these tools will help graduates of the school to successfully monitor and respond to infectious disease outbreaks; manage chronic diseases including improving mental health, tracking and analyzing health data; reduce health disparities, and communicate with patients and communities more effectively.

In addition, public health technology can also involve the use of innovative tools and technologies such as genomics; precision health/medicine; artificial intelligence and machine learning to develop new or optimize existing treatments; diagnostics, and interventions for public health issues, and to address the sociocultural determinants of health, and to reduce health disparities. Overall, public health technology plays a critical role in improving the health of populations and promoting better health outcomes for all.

Public health technology is an essential and emerging area requiring a workforce with diverse disciplinary backgrounds including public health, engineering, computer science, data science, information technology, medical sciences, social and behavioral sciences, design, business, ethics, etc. The new school will provide educational, research and entrepreneurship opportunities. Rapid technological evolution in the field necessitates a foundational and continuous approach to learning. The proposed academic unit will create new opportunities to prepare students to work in this important area while simultaneously positioning ASU as the leader in this developing field.

Reason for Establishing the Organizational Unit:

Public health infrastructure in Arizona and America requires modernization with innovative applications of technology to improve community health and reduce health disparities. The new school will provide an academic home for interdisciplinary public health technology as an emerging field and align ASU's efforts to expand new workforce opportunities for students while improving the health outcomes of diverse populations. The school will house the proposed BS in Public Health Technology and the MS in Public Health Technology.

Resources

Resources to grow the school will be supported by student enrollment and the reallocation of existing resources, including utilizing current faculty in other ASU academic units. Investments will include support for a school director and support faculty growth in public health technology related programs.

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EXECUTIVE SUMMARY

Item Name: Request for New Academic Programs for Arizona State University

☒ Action Item

Requested Action: Arizona State University (ASU) asks the committee to review and recommend for board approval the new program requests effective in the 2024-2025 catalog year, as described in this executive summary.

Background/History of Previous Board Action

As provided in the board policy, new academic unit requests may be submitted throughout the year with the approval of the University Governance and Operations Committee.

Discussion

Arizona State University is requesting the following new academic programs for implementation in the 2024-2025 academic year:

- BS in Ocean Futures
- MS in Coastal and Marine Science and Management
- PhD in Ocean Futures
- DHsc in Health Sciences
- BA in Computer Science
- PhD in Clean Energy Systems
- MS in Management of Technology
- MEd in Early Childhood Special Education
- MA in Interdisciplinary Education on Community Health and Wellbeing
- MS in Forensic Science
- BA in Global Citizenship
- BA in Sport, Society and the Human Experience
- BXS in Individualized Studies
- BS in Artificial Intelligence in Business
- BS in Financial Technology
- MS in Artificial Intelligence in Business
- DBA in Supply Chain Management

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- DCJ in Criminal Justice
- BS in Public Health Technology
- MS in Public Health Technology
- MAS in Advanced Studies

Degree planning at ASU is founded on the Charter: ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

All academic degree programs go through multiple review and approval processes to ensure their currency, quality, and relevance. The academic deans, in consultation with the directors of the academic units, submit information on all proposed new degrees, concentrations, minors, and certificates for the ensuing year, as well as changes to existing degree titles, program disestablishments, and creation of new organizations, organizational changes and disestablishments. Once reviewed and approved by the Provost, these initiatives begin the review process, including, as applicable, the curriculum committees in the academic unit, college, graduate college, and university senate. At each level, a substantive review of the proposed program is completed to ensure quality and to avoid redundancy with other programs.

The provost reviews all resources involved in program development, both in the college offering the degree program and other colleges offering supporting courses. The distribution of the institution's resources, including faculty, infrastructure, administration and support staff, are reviewed to optimize and maximize capacity. In addition, the university invests annually in academic units based on enrollment growth, allowing academic units to expand capacity, with the additional funds invested in strategic hiring. The academic units also receive increasing revenue from summer and online operations which provides resources for the initiatives.

The proposed undergraduate degrees leverage ASU's design aspirations in support of the charter. The BS in Public Health Technology will fuse disciplines while training students at the intersection between health and technology; similarly, the BS in Artificial Intelligence in Business and the BS in Financial Technology will train students at the intersection of science and business. The BA in Computer Science and BXS in Individualized Studies offer new pathways for different types of learners. The BS in Ocean Futures will equip students with scientific knowledge and problem-solving skills. The BA in Global Citizenship and the BA in Sport, Society and the Human Experience will foster critical thinking and problem solving relevant across careers and grounded in humanistic study.

The proposed graduate degrees will provide advanced training for in-demand STEM fields, focusing on clean energy, technology, forensic science, health science, and artificial intelligence for business applications, and financial technology, ocean futures and marine science. Other proposed degrees train educators, prepare experts in

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criminal justices, and provide flexible opportunities to create unique, interdisciplinary advanced degrees.

The proposed degrees include new offerings from a proposed School of Public Health Technology that will support the ABOR AZ Healthy Tomorrow initiative by developing health and technology integrated opportunities.

The degree proposals are aligned strategically with our design aspirations to leverage our place, transform society, value entrepreneurship, include use-inspired research, enable student success, fuse intellectual disciplines, be socially embedded, and engage students with issues locally, nationally and internationally.

Statutory/Policy Requirements

ABOR Policy 2-223 “Academic Locations, Degree Programs and Organizational Units”

EXECUTIVE SUMMARY**Arizona State University Academic Plan 2024-2025**

Program Name	College/School
Program Name	College of Global Futures
BS in Ocean Futures	
MS in Coastal and Marine Science and Management	
PhD in Ocean Futures	
Program Name	College of Health Solutions
DHsc in Health Sciences	
Program Name	Ira A. Fulton Schools of Engineering
BA in Computer Science	
PhD in Clean Energy Systems	
MS in Management of Technology	
Program Name	Mary Lou Fulton Teachers College
MEd in Early Childhood Special Education	
MA in Interdisciplinary Education on Community Health and Wellbeing	
Program Name	New College of Interdisciplinary Arts and Sciences
MS in Forensic Science	
Program Name	The College of Liberal Arts and Sciences
BA in Global Citizenship	
BA in Sport, Society and the Human Experience	
Program Name	University College
BXS in Individualized Studies	

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Program Name	W. P. Carey School of Business
<u>BS in Artificial Intelligence in Business</u>	
<u>BS in Financial Technology</u>	
<u>MS in Artificial Intelligence in Business</u>	
<u>DBA in Supply Chain Management</u>	
Program Name	Watts College of Public Service and Community Solutions
<u>DCJ in Criminal Justice</u>	
Program Name	Office of the University Provost - Programs
<u>BS in Public Health Technology</u>	
<u>MS in Public Health Technology</u>	
Program Name	Graduate College
<u>MAS in Advanced Studies</u>	

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: BS in Ocean Futures
Academic Department: College of Global Futures <i>School of Ocean Futures</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: Fall 2024
Brief Program Description: Healthy human futures depend on healthy ocean futures, and vice versa. According to the UN, presently about 40% of the world's population lives within 100 kilometers of the coast. The flourishing of societies and the planet requires a holistic approach to support healthy ocean and coastal ecosystems in the face of a changing future. Addressing the growing challenges the ocean faces requires transdisciplinary study and use-inspired research that works towards culturally appropriate solutions for local to global stewardship of the future oceans. A Bachelor of Science in Ocean Futures will provide the base understanding of the importance of the processes governing global oceans, as well as threats to the ecosystems and human populations they support. It also provides a foundation in coastal and marine system science and focuses on the social, economic and equity aspects of ocean stewardship, including the integration of intergenerational and Indigenous values in developing blue economies, coastal and marine protection and management, land-sea interactions, community-based stewardship, the impact of fisheries on ocean health, and coral reef restoration.

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Students will gain not only knowledge of integrated ocean science, but also cognitive skills in critical and futures thinking, information and digital literacy, and problem-solving. Students also will develop interpersonal skills in civic and global responsibility and leadership, as well as the cultural sensitivity and empathy for diverse communities needed to become transformational leaders by working with communities, stakeholders and rights-holders to build skills in context-specific and solutions-oriented research, data analysis and communication.

This program is designed to grow the next generation of ocean stewards, community leaders, innovators and researchers and build their capacity for transformational changes in societal perspectives and practices related to the oceans. It leverages ASU's expertise in Arizona as well as partnerships in Bermuda, Hawaii and other locations to provide education, research and training opportunities. Through the School of Ocean Futures and its partnerships with the Bermuda Institute of Ocean Sciences (BIOS), one of the longest-serving research institutes dedicated to studying ocean processes, and the Center for Global Discovery and Conservation Science operating out of Hawaii, ASU students can be positioned at the forefront of addressing complex problems foundational to thriving ocean futures.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Graduates are able to apply appropriate quantitative analysis to their research to advance healthy coastal communities and marine systems.

- **Concepts:** quantitative analysis, application and interpretation; regression analysis; descriptive statistics; numerical analysis and other methods, models and tools (graphs, tables, linear regression); identification, collection and formatting of appropriate data sets; development and use of predictive tools; visualization of findings; integration of quantitative analyses into decision recommendations
- **Competencies:** Students will apply data or modeling skills to understand and address coastal and marine decisions, both now and in the future, and develop and use quantitative approaches to predict the behavior of systems under current and future circumstances. Students will visualize, extrapolate and translate quantitative information into design of solutions.
- **Assessment Methods:** Students will be required to take a quantitative methods and a quantitative applications course, which will include quantitative analysis, interpretation and application. In the Capstone, students will produce the written thesis/capstone project decision analysis. The required capstone or thesis written assignment will be assessed with a faculty-developed rubric. Students will also be assessed in the UOEEO Graduating Student Report Card survey using a five-point scale. The survey item used is "To what extent has your experience at ASU contributed to your knowledge, skills, and personal development in the following areas? Analyzing quantitative problems."
- **Measures:** Results from both assessment measures will be provided to the Ocean Futures director for understanding overall student cohort strengths and weaknesses for this program outcome. This information will be used for the continuous improvement of the curriculum.

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Learning Outcome 2: Students will be able to write a decision-focused analysis with recommendations for action and additional research.

- **Concepts:** literature review; mind mapping; stakeholder analysis; landscape analysis; data identification; critical thinking skills; ethical analysis; futures thinking; written skills including generating a problem statement, organization, synthesis, evaluation and integration of relevant evidence and media
- **Competencies:** Students will be able to communicate through written means, demonstrate organization of ideas, scope a problem from a systems perspective, identify and evaluate key academic research in a literature review, organize practitioner best practices in a landscape analysis, select and apply appropriate methods, integrate relevant evidence and media, synthesize findings, identify and evaluate recommendations for short term and long term actions, incorporating both scientific and ethical perspectives, and define new research questions.
- **Assessment Methods:** Students will be required to take the Capstone course and will be assessed in the final written analysis. Students will demonstrate competency in developing a decision-focused analysis including scoping a problem from a systems perspective, conducting a literature and landscape review, justifying the selection of appropriate methods. Performance will be assessed with a faculty-developed rubric. Students will also submit a reflection on the preparation of decision analysis and will be measured with a faculty-developed rubric for an analysis of progress towards learning to create a decision analysis with recommendations.
- **Measures:** Results from the assessments will be provided to the Ocean Futures director for understanding overall student cohort strengths and weaknesses for this program outcome. This information will be used for the continuous improvement of the curriculum.

Learning Outcome 3: Students will be able to communicate with key stakeholders/rights holders through the creation, implementation and evaluation of appropriate media (oral presentation, written analysis, film, art, community gathering, etc.)

- **Concepts:** communication, engagement, co-production, inclusivity, stakeholders, rightsholders, media strengths and weaknesses, products (oral, written, film, art, community gathering), cross-cultural communication, pragmatics, translation, cultural sensitivity, language ideologies, critical language awareness
- **Competencies:** Students will learn how to communicate with key individuals and communities, and how to conduct a stakeholder/rights-holder analysis to strategize inclusive approaches with communities, stakeholders and rights-holders, academics, practitioners, and the general public. Students will gain the ability to craft materials (oral, written, film, art, community gathering, etc.) that effectively communicate their work and its value to diverse audiences.
- **Assessment Methods:** Students will be required to take the core Capstone course. Through this course, they will design, implement and submit a communication/engagement, co-production project as they are guided through the

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required applied workshop and capstone courses. Students will also submit a reflection on their preparation of this communication product and develop a written decision analysis with recommendations. In the Capstone, students will complete a communication project assignment where students will choose appropriate media with which to design, implement and effectively communicate their work and its value to key audiences. This final communication/engagement product/activity will be assessed by faculty through a rubric. Students will also complete a student reflection on their preparation of their communication product measured with a faculty-developed rubric.

- **Measures:** Results from both assessment measures will be provided to the Ocean Futures director for understanding overall student cohort strengths and weaknesses for this program outcome. This information will be used for the continuous improvement of the curriculum.

Projected Enrollment for the First Three Years:

Year 1: 20

Year 2: 60

Year 3: 150

Evidence of Market Demand:

According to the U.S. Bureau of Labor Statistics, the employment of marine scientists and biologists is projected to grow by 4% from 2019 to 2029. This increase in demand will be driven by both the private and public sectors: e.g., environmental consulting firms are expected to drive demand through their need for marine science graduates to address environmental challenges such as climate change and oil spills, while the public sector (including agencies such as the National Oceanic and Atmospheric Administration) will continue to require marine science graduates as they work to manage and conserve marine resources and ecosystems and predict and respond to natural disasters (e.g., hurricanes and tsunamis). In this context, marine science encompasses both ocean futures and coastal and marine science.

The U.S. Bureau of Labor Statistics does not have specific data on employment projections for marine science graduates in Arizona. However, the state is home to several institutions of higher education, such as Arizona State University, that offer marine science courses, and the growing demand for marine science professionals across the country may also translate to opportunities in Arizona. Arizona's coastal location near the Gulf of California and its growing tourism industry may also increase the demand for marine science graduates in the state for environmental management and conservation efforts. Additionally, Arizona State University has a location in Hawaii, where, due to the state's unique geography and marine environment, the demand for marine science graduates is expected to be high. The Hawaiian Islands are home to a diverse array of marine life and ecosystems, including coral reefs, deep-sea habitats and pelagic systems, making it a prime location for marine research and conservation efforts. In addition, Hawaii's tourism industry, which relies heavily on the state's marine resources, is driving the demand for marine science graduates who can help protect and preserve these resources.

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According to zippia.com, the top ten jobs, including starting salaries and the number of job openings, for marine science graduates are:

Research Associate; \$41,000; 63,884 openings
 Environmental Scientist; \$43,000; 56,425 openings
 Fishery Observer; \$27,000; 405 openings
 General Scientist; \$67,000; 62,467 openings
 Laboratory Technician; \$27,000; 84,357 openings
 Marine Scientist; \$45,000; 57,007 openings
 Marine Technician; \$27,000; 57,368 openings
 Biologist; \$46,000; 5,741 openings
 Research Assistant; \$28,000; 51,080 openings
 Research Technician; \$31,000; 64,786 openings.

Moreover, according to material published by the American Society for the Sciences of Limnology and Oceanography, marine science graduates can also pursue careers with science magazines, book publishers, media, legal firms and environmental societies.

Similar Programs Offered at Arizona Public Universities:

There are no similar programs at Arizona public universities. The closest programs are the Minor in Marine Science and BS in Geosciences: Earth, Ocean, and Climate Emphasis at University of Arizona, and BS in Environmental Sciences and BS in Environmental and Sustainability Studies at Northern Arizona University.

None of these programs have the disciplinary breadth in marine and ocean sciences as the proposed degree.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing College of Global Futures resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

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Specialized Accreditation?	YES	NO
Accreditor: There are no accreditation or licensing requirements for degrees in the field of marine science.		

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: MS in Coastal and Marine Science and Management
Academic Department: College of Global Futures <i>School of Ocean Futures</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: Fall 2024
Brief Program Description: The MS program in Coastal and Marine Science and Management provides core knowledge and professional skills needed to ensure success as the next generation of scientists, resource managers, community leaders, policymakers, innovators, researchers and educators prepare to support and sustain resilient coastal and marine ecosystems for the future. The MS program prepares students with skills in context-specific and solutions-oriented research, geospatial and statistical data analysis, and written and oral communications needed to lead their communities and organizations, locally and globally, in the stewardship of coastal and marine resources. Through the program coursework and culminating experience, students will have the option to conduct use-inspired research and work within communities, and government and nongovernmental agencies on solutions-based projects focusing on coastal and marine science and management, in turn supporting societal needs and the university's mission.
Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply appropriate quantitative methods in their research and data analysis, and will develop a final culminating experience that designs solutions in support of the advancement of healthy coastal communities and marine systems.

- **Concepts:** quantitative statistical methods (regression analysis, factor analysis, analysis of variance, multivariate analysis, and time series analysis), qualitative statistical methods (survey methods, content analysis, thematic analysis, and narrative analysis), spatial analyses, geographical information system analysis (GIS), data interpretation and visualization
- **Competencies:** Students will be able to select appropriate research methods and apply both data and modeling skills to address coastal and marine science and management decisions that will affect coastal communities both now and in the future. In addition, they will also be able to develop and use quantitative approaches to predict the behavior of systems under current and future circumstances, as well as visualize, extrapolate, and translate quantitative information into the design of solutions.
- **Assessment Process:** Students are required to write a final paper in their culminating experience, either capstone course or thesis. The final paper (Quantitative Analysis section) is evaluated by a faculty-designed rubric to assess the student's ability to use quantitative methods and data analysis to design a solution for an issue in coastal and marine science and management. In addition, the program's ability to prepare students for competency in the outcome will be assessed with the Graduate and Law Student Report Card survey. Students will respond to the following question on the Graduate and Law Student Report Card, "How strong was your graduate program in providing training in each of the following areas? = Quantitative skills."
- **Measures:** Data from the assessment will be shared with faculty and used for continuous improvement, and to identify any missing elements and provide an annual report to the Ocean Futures director synthesizing all student cohort strengths and areas for improvement.

Learning Outcome 2: Students will write a decision analysis, resulting in a final report with recommendations for action and additional research to support solutions to coastal and marine management issues.

- **Concepts:** literature review; mind mapping; stakeholder analysis; landscape analysis; critical thinking skills; design theory; ethical analysis; futures thinking and complementary methods; written skills, including generating a problem statement, organization, synthesis, evaluation and integration of relevant evidence and media
- **Competencies:** Students will be able to utilize learned knowledge from the program and research in the field to formulate a research problem, develop a problem statement or hypothesis, write a decision-focused analysis, synthesize findings, and propose recommendations for action and additional research from scientific and ethical perspectives.
- **Assessment Process:** Students will be required to take topical courses as well as an Ocean Futures Workshop course, where they will learn how to scope a problem from

a systems perspective as well as perform a review of the literature and a landscape analysis to develop research questions that identify and evaluate stakeholder needs in coastal and marine science and management from scientific and ethical perspectives, resulting in a written decision analysis report with recommendations for action and additional research to support solutions to coastal and marine management issues. Students will submit the written decision analysis report to the faculty instructing the Ocean Futures Workshop for review. The final written decision analysis report will be assessed by a faculty-developed rubric that measures how well the graduates perform a critical review of the literature and stakeholder needs to produce written decision analysis of the scientific and stakeholders' needs, resulting in recommendations for action and additional research for coastal and marine science and management issues. In addition, students will be required to write a reflective essay (OFW reflection on written decision analysis) for their culminating experience on the preparation of the decision analysis with prompts (How prepared do you feel you are to perform a decision analysis?), as well as to provide their suggestions for how to better support future students in developing such analyses.

- **Measures:** Data from the students' final reports and reflective essays will be used to identify any missing elements and provide an annual report to the Ocean Futures director synthesizing all student cohort strengths and areas for program improvement. This synthesis will be used for continuous improvement of the curriculum. Data from the rubrics will be collected and analyzed to evaluate students' overall competency in the outcome. Data will be reviewed to ensure students are meeting program expectations.

Learning Outcome 3: Students will communicate the value for solutions to coastal and marine sciences management when communicating with stakeholders/rights holders.

- **Concepts:** different communication methods, co-production of knowledge, design and implementation strategies, pragmatics, translation and interpretation, cultural sensitivity, language variety, critical language awareness and language ideologies, content development, disciplinary conventions, source and evidence, analytic expression, oral communication skills, identifying multimedia, data visualizations
- **Competencies:** Students will be able to communicate, engage and co-produce knowledge and solutions with key individuals and communities; conduct a stakeholder/rights-holder analysis to strategize inclusive approaches with communities, stakeholders and rights-holders, academics, practitioners, and the general public; develop and utilize materials (oral, written, film, art, community gathering, or another form) that effectively communicate their work and its value for solutions to coastal and marine science and management issues to diverse audiences.
- **Assessment Process:** Students will be required to design, implement and submit to their digital portfolio, a written communication product, or activity as guided through the required applied Ocean Futures Workshop course and faculty mentorship. Students will research, select and learn to use an appropriate media (oral, written, film, art, community gathering, or other form) to communicate their work in coastal and marine science and management and its value to diverse audiences. Students will present their final communication product to their faculty committee for review and at

least one external community audience. The final culminating experience communication product will be evaluated using a faculty-developed rubric that measures how well the student selected and presented the appropriate media to communicate their work and its value for solutions to coastal and marine science and management issues to diverse audiences. In addition, students will respond to the following question on the Graduate and Law Student Report Card survey, “How strong was your graduate program in providing training in each of these additional areas? = Engaging with the community to address global and local issues.”

- **Measures:** Data from the students’ final presentations and the information from the survey will be used to identify any missing elements and provide an annual report to the Ocean Futures director synthesizing all student cohort strengths and areas for improvement in project communication. Data from the assessment will be shared with faculty and used for continuous improvement, and data from the rubrics will be collected and analyzed to evaluate students’ overall competency in the outcome. Data will be reviewed to ensure students are meeting program expectations.

Projected Enrollment for the First Three Years:

Year 1: 10

Year 2: 20

Year 3: 40

Evidence of Market Demand:

According to the US Bureau of Labor Statistics, employment of marine scientists and marine biologists is projected to grow 4% from 2019 to 2029. The private sector, particularly environmental consulting firms, is expected to drive the demand for marine science graduates, as companies continue to need their expertise to address environmental challenges, such as climate change and oil spills. The public sector, including government agencies such as the National Oceanic and Atmospheric Administration (NOAA), also has a need for marine scientists and marine biologists, as they work to manage and conserve marine resources, monitor the health of marine ecosystems, and predict and respond to natural disasters such as hurricanes and tsunamis. In summary, the market research data indicates a positive trajectory for employment opportunities in marine science and marine biology. The demand for these professionals is driven by both the private sector's commitment to addressing environmental challenges and the essential role played by government agencies in marine resource management and disaster preparedness. As these trends continue to evolve, individuals pursuing careers in these fields can anticipate a steady and growing demand for their expertise.

Additionally, nearby coastal locations on the Gulf of California and its growing tourism industry may increase the demand for marine science graduates in the state for environmental management and conservation efforts. (Johnson, Andrew F., et al. “Marine Ecotourism in the Gulf of California and the Baja California Peninsula: Research Trends and Information Gaps.” *Scientia Marina*, vol. 83, no. 2, 2019, pp. 177–85, <https://doi.org/10.3989/scimar.04880.14A>.)

As of early September 2023, for those jobs listing a master's degree as a required or desirable condition for employment, Indeed.com (U.S.) has approximately 1048, 416, 689, 55

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and 27 job postings, respectively, for the categories of marine science, marine biology, oceanography, marine resource, and marine conservation. Job categories include (but are not limited to) research technicians, non-profit employees, education specialists, and resource managers.

Using a broader lens based on the skills and competencies of the program (not including the term “marine” in searches), graduates with an MS in Coastal and Marine Science and Management will also have career opportunities as environmental scientists, biologists, environmental and community planners, resource and conservation managers and technicians, research coordinators, etc. According to Lightcast, current job openings in this broader set of occupations total about 10,000 annually with anticipated growth by 2027 of ca. 7%.

Similar Programs Offered at Arizona Public Universities:

Although the programs listed here that are closest in nature to the Arizona State University, School of Ocean Futures MS in Coastal and Marine Science, there are no other programs in coastal and marine science offered in Arizona.

University of Arizona does offer some individual oceanography courses but does not have a marine science MS program and the programs listed here are not online. The closest programs are:

MS in Natural Resources: Fisheries Conservation & Management or Watershed Management & Ecohydrology

MS in Environmental Science

MS in Geosciences: concentration in Biogeochemistry

MS in Hydrometeorology

Northern Arizona University offers some individual oceanography courses but does not have a marine science MS program. The closest programs are the MS in Environmental Sciences and Policy and the MS in Climate Science and Solutions.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: \$2700 per semester for an average of nine credit hours

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Program Fee Justification: The School of Ocean Futures' online MS in Coastal and Marine Science and Management is a flexible graduate program designed to train the next generation of scientists, resource managers, community leaders, policymakers, innovators, researchers, and educators. This program is an integral part of the new school of Ocean Futures. ASU more broadly, and the School of Ocean Futures specifically, recognizes the importance of inclusive, accessible and innovative education. The program fee will help the school deliver a superior student experience and would support:

- Instructional delivery
- Instructional design support
- Enrollment growth and cohort diversity with funds for marketing the program
- Program coordination as the program grows - admissions, advising, and student services support
- Access to program-specific career services

Specialized Accreditation? YES NO

Accreditor: There are no accreditation or licensing requirements for degrees in Marine Science.

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: PhD in Ocean Futures
Academic Department: College of Global Futures <i>School of Ocean Futures</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 84
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The PhD in Ocean Futures provides a fundamental understanding of the processes governing the global ocean, as well as threats to the ecosystems and human populations it supports. Students pursuing a PhD in Ocean Futures will hone skills in critical and futures thinking, data analysis, information/digital literacy, and problem-solving as well as interpersonal skills for communication, civic and global responsibility, cultural sensitivity, and leadership to serve diverse communities. The School of Ocean Futures – partnering with the Bermuda Institute of Ocean Sciences (BIOS), one of the longest-serving research institutes dedicated to studying ocean processes, and the Center for Global Discovery and Conservation Science operating out of Hawaii – provides the opportunity for trans/interdisciplinary scholarly study and use-inspired research that work towards culturally appropriate solutions for local to global stewardship of the future ocean.</p> <p>The PhD program in Ocean Futures supports ASU's mission focusing on the design aspirations through the main learning objectives. Most prominently, the program is committed to the success of students with backgrounds in the sciences, natural resource management, sustainability, environmental policy, indigenous knowledge systems, entrepreneurship and other similar areas (Enable Student Success: Committed to the success of each unique student). The major degree components include quantitative research and analysis skills to</p>

provide students with the competencies and skills to “Fuse Intellectual Disciplines: Create knowledge by transcending academic disciplines,” combined with place-based, decision analysis tools to support students to “Conduct Use-Inspired Research: Research has purpose and impact” and “Practice Principled Innovation: Place character and values at the center of decisions and actions” in their place (“Leverage Our Place: Embrace its cultural, socioeconomic, and physical setting.”) Finally, the students are required to engage, communicate with, and share back to the communities and stakeholders/right holders in the study regions where they are embedded (“Be Socially Embedded: Connect with communities through mutually beneficial partnerships,”) and the importance of their research that informs solutions for healthy ocean systems and coastal communities, locally to globally (“Engage Globally: Engage with people and issues locally, nationally, and internationally.”

Graduates from the program will hone the philosophical and scientific expertise to contribute to the scholarly generation, translation and dissemination of knowledge that furthers understanding of coastal and ocean systems and informs or designs solutions to their current and future issues, in turn supporting societal needs and the university’s mission.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will develop and apply a research methodology in their research dissertation that analyzes and interprets data advancing the health of coastal communities and ocean systems.

- **Concepts:** quantitative statistical methods (regression analysis, factor analysis, analysis of variance, multivariate analysis, time series analysis, deep learning), qualitative descriptive methods (survey techniques, content analysis, thematic analysis, narrative analysis), spatial analyses, geographical information system analysis (GIS), data interpretation and visualization
- **Competencies:** Students will be able to select appropriate research methods and apply data or modeling skills to address current and future issues in coastal and marine science. In addition, they will also be able to develop and use quantitative approaches to predict the behavior of systems under current and future circumstances, as well as visualize, extrapolate, and translate quantitative information to inform or design solutions to issues facing the future coastal and ocean systems.
- **Assessment Methods:** Students will be assessed on their ability to conduct a major research project and apply a research methodology that analyzes and interprets data in their research dissertation that will be assessed with two measures. Students will develop and carry out a quantitative methodology in their research dissertation that will inform solutions and understanding in support of the advancement of healthy coastal communities and ocean systems. This will be evaluated through a rubric with 80% of the graduating students expected to pass their dissertation, attaining a rating of 3 out of 4 on the faculty-developed rubric.

A university survey, ASU’s Graduate and Law Student Report Card, item “How strong was your graduate program in providing training in each of the following areas? = Quantitative skills” will be collected as well scored with a four-point scale ranging from “strong” to “very strong.” 80% of students will be expected to answer “very strong” or

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“strong.” Students will also complete the ASU’s Graduate and Law Student Report Card, specifically reviewing the survey item “How strong was your graduate program in providing training in each of the following areas? = Quantitative skills.”

- **Measures:** Data will be compiled at the end of each program's cohort, and will be used for continuous program improvement.

Learning Outcome 2: Students will conduct a major independent research project that makes a unique contribution to the field, presenting their findings in a written dissertation.

- **Concepts:** independent research process, research study design, consultation, data-driven solutions, effective oral and written communication
- **Competencies:** Students will have the ability to synthesize learned knowledge from the program and research in the field to formulate a research problem, develop a problem statement or hypothesis, write a decision-focused analysis, synthesize findings, and propose recommendations for action and additional research from scientific and ethical perspectives. In addition, they will understand the concept of scholarly discourse through related research studies in the field of oceans and coastal marine science, and display knowledge of scholarly conventions of writing and incorporate scholarly dialogue to express their own ideas through logical argumentation.
- **Assessment Methods:** Students will be assessed on their ability to conduct an independent research project and present their findings in a written dissertation that will develop and implement a major independent research project that makes a unique contribution to the field and offers solutions and actions for issues facing ocean and coastal systems. Their research dissertation will be assessed with two measures. The first will be the Ocean Futures Workshop course where they will be assessed on their framing of the research problem. They will be assessed using a faculty-developed rubric with the criteria of justifying the work. The second will be the final student dissertation that will also be assessed on a faculty-developed rubric with the expectation that 80% will pass on their first attempt of defending their dissertation at a level of five or higher. Students will also be assessed on framing a research problem for their independent research in their Futures Workshop course. The assignment will be assessed with a faculty-developed rubric with at least 80% of the students meeting (rating: 3) or exceeding (rating: 4) expectations.
- **Measures:** Data from the assessment will be aggregated and shared with the faculty. Results will be used for continuous improvement.

Learning Outcome 3: Students will communicate knowledge during their dissertation oral defense demonstrating the ability to explain discipline-specific concepts to multiple stakeholders.

- **Concepts:** pragmatics, translation and interpretation, cultural sensitivity, language variety, critical language awareness and language ideologies, content development,

disciplinary conventions, source and evidence, analytic expression, oral communication skills, multimedia, data visualizations

- **Competencies:** Students will be able to present and co-produce knowledge and solutions with key individuals and communities, conduct a stakeholder/rights-holder analysis to strategize inclusive approaches with communities, and effectively communicate their work and its value for solutions to coastal and marine science and management issues to diverse audiences. In addition, they will be able to develop and explain data analytics; how to communicate, engage and co-produce knowledge and solutions with key individuals and communities; conduct a stakeholder/rights-holder analysis to strategize inclusive approaches with communities, stakeholders and rights-holders, academics, practitioners, and the general public; and gain the ability to craft materials (oral, written, film, art, community gathering, or other) that effectively communicate their work and its value for solutions to coastal and marine science and management issues to diverse audiences.
- **Assessment Methods:** Students will communicate knowledge during their individual dissertation defense demonstrating the ability to explain discipline-specific concepts to multiple stakeholders. This will be assessed during the oral defense, and scored with a faculty-developed rubric that is distributed to stakeholders identified with this topic and the defense committee with the expectation that 80% of students will pass on their first attempt of defending their dissertation at a level of 4 or higher on a faculty-designed rubric. The performance criteria are that at least 80% of all students will successfully defend their dissertation in front of a panel of faculty and stakeholders on the first attempt, at a level of 4 or higher out of 5 on a rubric (3 being the criterion required to pass). Students will also be assessed in the Global Futures Workshop course with their communication report submission that can be individual or co-produced. A faculty-developed rubric will be used to determine if the appropriate media and its presentation were cogent to the identified audience and stakeholders' group where 80% of students will be expected to successfully complete this assignment. The performance criteria are that at least 80% of the students will meet (rating: 5, passing) using the faculty-developed rubric. This feedback from the rubric will be shared with the student and implemented into the final dissertation defense.
- **Measures:** Data from the measures will be used to identify any missing elements and provide an annual report to the Ocean Futures director synthesizing over all student cohort strengths and areas for improvement. Data from assessment will be shared with faculty and used for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 10

Year 2: 20

Year 3: 40

Evidence of Market Demand:

According to the U.S. Bureau of Labor Statistics, employment of marine scientists and marine biologists is projected to grow 8% and 5%, respectively, in the next five years. As the

importance of issues in the oceans and their surrounding coastal communities grows both locally and globally, the demand for scholarly leaders in multiple employment sectors is rising, and most employers prefer candidates who hold a postgraduate or a doctoral degree (Seedscientific.com). There is an increasing demand for academic leaders in ocean and marine sciences who can train future generations. In addition, the private sector, particularly environmental consulting firms, is expected to increase the demand for marine science graduates as companies continue to need leaders to address environmental challenges, such as climate change, marine debris and oil spills. The public sector, including government agencies such as the [National Oceanic and Atmospheric Administration \(NOAA\)](#), also has a need for multi-disciplinary leaders with knowledge in marine science, oceanography, policy and community engagement as they work to manage and conserve marine resources, monitor the health of marine ecosystems, and predict and respond to natural disasters such as hurricanes and tsunamis.

The U.S. Bureau of Labor Statistics does not have specific data on employment projections or median annual wages for marine science or biology graduates in Arizona. However, nationwide annual wages range from \$59,680 for a marine researcher to \$105,720 for an oceanographer with advanced training. As of late March 2023, for those jobs listing a PhD as a required or desirable condition for employment, Indeed.com (U.S.) has approximately 60, 30, and 80 job postings, respectively, for the categories of marine science, marine biology, and oceanography. Job categories include: academic positions, research technicians, resource managers, and postdoctoral scholars (marineinsight.com).

Similar Programs Offered at Arizona Public Universities:

There are no other programs in Ocean Futures or related subjects offered in Arizona.

The University of Arizona does offer some individual oceanography courses but does not have a marine or ocean science PhD program.

Northern Arizona University does offer some individual oceanography courses but does not have a marine science PhD program. The closest program is a PhD in Earth Sciences and Environmental Sustainability.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

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Plan to Request Program Fee/Differentiated Tuition?	YES	NO
Estimated Amount: Not applicable.		
Program Fee Justification: Not applicable.		
Specialized Accreditation?	YES	NO
Accreditor: There are no accreditation or licensing requirements for degrees in Marine Science.		

Request to Establish New Academic Program in Arizona**University:** Arizona State University

Name of Proposed Academic Program:
DHSc in Health Sciences
Academic Department:
College of Health Solutions
Geographic Site:
Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality:
Both Campus and Digital Immersion
Total Credit Hours:
60
Proposed Inception Term:
Fall 2025
Brief Program Description:
The Doctor of Health Sciences is a professional doctorate designed for health care providers and educators to gain additional knowledge, skills (strategic planning, policy analysis, interprofessional health professions curriculum design) and experience that will enhance their professional training and build upon their experiences to obtain leadership positions in their respective health care industry. These positions often require advanced degrees with a focus on health leadership, administration, policy and interprofessional health professions education, which this program would provide. This is particularly important for professions in which the terminal degree is a Master of Science, such as physician associates, genetic

counselors, registered dietitians and speech-language pathologists. Additionally, this program would serve postsecondary and university faculty in health-related fields and health professions education who require a doctoral degree to obtain senior teaching or administrator positions, but for whom a research-focused PhD is not appropriate.

This degree would serve to upskill the Arizona health care workforce, which is needed not only for patient care, but also for the instruction of health professions students who will be entering into the workforce. Through flexible learning, ASU can reach these working professionals while building a community with expert health professions faculty and student colleagues. Most importantly, this program would support the ASU charter through improving the health of the communities we serve.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will design an independent applied research project and complete a final written report on health care delivery system factors using advanced scientific methodologies.

- **Concepts:** applied research, research design, translational science, data management, quantitative and qualitative data analysis, methodological literacy, independent research, analysis, critical thinking, communication and presentation skills
- **Competencies:** Students will have the ability to accurately form and frame a topic for their applied research project, consider a wide variety of research sources and assess their quality, and compile and review data, resulting in a final written report expressing independent ideas on the factors that impact health care delivery systems.
- **Assessment Methods:** In preparation of their final applied research project, students will enhance their research skills by completing a literature review assignment in the Research Methods course. This assignment will require students to demonstrate their knowledge of advanced research methods needed to design and conduct an applied research project in the areas of health sciences. In the Advanced Biostatistics for Biomedical Research and Health Care course, students will complete a final project requiring them to use the R and SAS statistical programming languages to display and analyze data, evaluate statistical procedures and algorithms, and apply regression modeling. For the Applied Project course, students will complete their final project, which includes framing a research question, conducting a literature review, and completing a final written report showing competency in the outcomes. The knowledge and skills demonstrated through successful completion of these assignments, the final applied project, and written report will be assessed using faculty-designed rubrics. Data on the performance criteria will be collected by the DHSc program director at the conclusion of each term.

In addition, a DHSc exit survey will be deployed to graduating students each term by the program director to evaluate the students' perceptions regarding the success of the degree program in teaching the concepts.

- **Measures:** Faculty-developed rubrics will be used to assess students' ability to complete a successful literature review demonstrating their knowledge of advanced research methods in the Research Methods course; their ability to use R and SAS statistical programming languages to display and analyze data, evaluate statistical procedures and algorithms, and apply regression modeling in the Advanced Biostatistics for Biomedical Research and Health Care course; and their ability to conduct a final applied research project with a written report in the Applied Project course. At least 75% of DHSc students will receive an 80% or better on these assignments, their final project, and the written report. In addition, the Doctor of Health Sciences program exit survey will be deployed with at least 80% of the surveyed graduating students answering as 'strong' or 'very strong' to the question, "How strong was the program in providing training in how to design an independent applied research project on health care delivery system factors?" When combined, the data will show successful competency in the ability of students to design an independent applied research project and complete a final written report on health care delivery system factors using advanced scientific methodologies.

In consultation with the DHSc curriculum committee, the program director will monitor average rubric scores and survey results compared to historical data when compiling the annual assessment report. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials moving forward.

Learning Outcome 2: Students will analyze the role of leadership and leading teams through conducting applied research projects in the field of health sciences.

- **Concepts:** leadership theories, including agile leadership, change leadership, and inclusive leadership concepts; ethical principles in patient care; health care organization structures; managing health care teams
- **Competencies:** Students will have the ability to identify leadership and ethical issues facing health care leaders; review health care and patient care leadership literature; and adopt styles, traits and principles to effectively lead a team.
- **Assessment Methods:** Students will expand their skills in analyzing the impact of ethical issues on organizational culture and team performance in health care by completing an ethical dilemma report in the Project Management for Interdisciplinary Teams course. This assignment will require students to demonstrate their ability to assess organizational culture in terms of an ethical dilemma and the impact it has on team goals and outcomes. The knowledge and skills acquired through successful completion of this assignment will be directly implemented into the students' final applied project. In the Health Care Leadership course, students will be required to synthesize the elements of selected leadership models into a cohesive personal leadership mindset project and apply supportive learned skills. The knowledge and skills demonstrated through successful completion of these assignments will be assessed using faculty-designed rubrics.

In addition, a DHSc exit survey will be deployed to graduating students each term by the program director to evaluate the students' perceptions regarding the success of

the degree program in teaching the concepts.

- **Measures:** Faculty-developed rubrics will be used to assess the students' ability to complete an ethical dilemma report, demonstrating their ability to analyze organizational culture throughout an ethical dilemma and the impact it has on both team goals and outcomes in the Project Management for Interdisciplinary Teams course, and to synthesize the elements of selected leadership models into a cohesive personal leadership mindset project in the Health Care Leadership course. At least 75% of DHSc students will receive an "80%" or better on these assignments. In addition, the Doctor of Health Sciences program exit survey will be deployed with at least 80% of the surveyed graduating students answering as 'strong' or 'very strong' to the question, "How strong was the program in providing training in how to analyze the role of leadership and leading teams in performing applied research projects?" When combined, the data will show successful competency in the ability of students to analyze the role of leadership and leading teams by conducting applied research projects in health systems.

Data on the performance criteria will be collected by the DHSc program director at the conclusion of each term. In consultation with the DHSc curriculum committee, the program director will monitor average rubric scores and survey results compared to historical data when compiling the annual assessment report. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials moving forward.

Learning Outcome 3: Students will employ systems-thinking concepts to solve a health-related problem in health care management, practice and education to drive positive change and improve outcomes.

- **Concepts:** organizational interdependencies, quality improvement, systems analysis, critical thinking, process mapping
- **Competencies:** Students will have the ability to define an issue in health care practice or education, examine associated interdependencies as a model, and form a hypothesis that explains the behavior of the system model.
- **Assessment Methods:** In preparation of their final applied research project, students will expand their understanding and application of systems thinking by completing a system map assignment in the Systems Thinking in Complex Health Care Environment course. This assignment will require students to create a visual depiction of a health system, including its relationships and feedback loops, actors, and trends. For the Applied Project course, students will complete their final applied research project written report, which will require the incorporation of systems analysis and process mapping in the research design and implementation. The knowledge and skills demonstrated through successful completion of the systems map assignment and applied project report will be assessed using faculty-designed rubrics. Data on the performance criteria will be collected by the DHSc program director at the conclusion of each term.

In addition, a DHSc exit survey will be deployed to graduating students each term by the program director to evaluate the students' perceptions regarding the success of the degree program in teaching the concepts.

- **Measures:** Faculty-developed rubrics will be used to assess the students' ability to complete a systems map, demonstrating their ability to create a visual depiction of a health system in the Systems Thinking in Complex Health Care Environment course and their ability to conduct a final applied research project with a written report incorporating systems thinking and process mapping in the Applied Project course. In addition, the Doctor of Health Sciences program exit survey will be deployed, with at least 80% of the surveyed graduating students answering as 'strong' or 'very strong' to the question, "How strong was the program in providing training in how to employ systems thinking concepts in health care management, practice, and education?" When combined, the data will show successful competency in the ability of students to employ systems thinking concepts to solve an issue in health care management, practice, and education to drive positive change and improve outcomes.

In consultation with the DHSc curriculum committee, the program director will monitor average rubric scores and survey results compared to historical data when compiling the annual assessment report. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials in support of continuously improving curriculum delivery.

Projected Enrollment for the First Three Years:

Year 1: 25

Year 2: 60

Year 3: 75

Evidence of Market Demand:

According to the ABOR 2022 Healthcare Workforce Gap Analysis report, this degree would facilitate career growth in key disciplines predicted to be in shortage, including physicians, nurses, physician associates, speech-language pathologists, Registered Dietitians, and other therapy services.

The most recent Lightcast data indicates that in 2021 there were 199 completions of doctoral programs at 21 institutions under Classification of Instructional Programs code Health Services/Allied Health/Health Sciences. This represents a 17% decrease in completions from 2017-2021; however, of these completions, 31 were from public institutions, which represents 131% growth in that space. There are only 8 public universities that offer this type of program, none of which are ABOR institutions, which represents an opportunity to fill the gap for a professional health sciences doctorate from a public Arizona university. Of all the doctoral programs under this CIP code, 48% are offered online and 52% on campus, which demonstrates the even market split of students who desire flexible learning that offering this program could satisfy. AT Still University, which holds 42.3% of the market share in this space and only offers this program online, has experienced a 23.5% decrease in completions from 2017-2021, which could present an opportunity for ASU to enter the space with a more flexible and affordable program.

According to Lightcast there were 1.17M unique job postings for full-time medical and health services managers between August 2021 and August 2023, with a median annual salary of

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\$90.5k. When filtered for positions requiring a doctorate degree, there were 91,159 postings, with a median annual salary of \$135k. This demonstrates the volume of opportunities for which doctorate-prepared students are competitive, as well as increased salary potential.

The U.S. Bureau of Labor Statistics projects a 28% increase in the job outlook for medical and health services managers between 2022-2032, which is much faster than average. When filtered for median annual wage by state, most Arizona counties are included in the highest paid category (\$117,580-\$162,110) including: Maricopa, Pinal, Pima, Coconino, Apache and Navajo. Medical and health services managers can work in general and specialty medical and surgical hospitals, physicians' offices, home health care services, and other ambulatory health services and outpatient care centers.

Similar Programs Offered at Arizona Public Universities:

UArizona: Doctor of Public Health: <https://grad.arizona.edu/catalog/programinfo/PHLDPH>
Rather than focusing on public health, the DHsc in Health Sciences will focus on leadership, policy and education in health professions.

NAU: DMSC in Medical Science:

<https://degree-search.nau.edu/degree/PHADMSC>

This program is specifically for Physician Associates (PAs), whereas the DHsc in Health Sciences will be open to other health professionals and also focus on interprofessionalism and team-based care. The NAU program does offer similar content, but the target audience will be much broader.

Currently, learners seeking a non-PhD program to advance in the health-related fields may enroll in the EdD in Leadership and Innovation program offered by the ASU Mary Lou Fulton Teachers College, either at the West Campus or online. The DHSc in Health Sciences would offer a more health-focused curriculum catered to current health professionals and their unique needs for professional advancement in a flexible format.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: \$2,500 per semester

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Program Fee Justification: A program fee will help support the experiential learning component required for each student to complete their culminating project: an applied research project. Specifically, engagement of community subject matter experts would be needed to supervise and advise projects, supported through hiring supplemental faculty associates. Additional program fees would be required for specific technology support such as virtual reality/augmented reality learning and other technology platforms to support distance education.

Specialized Accreditation? YES NO

Accreditor: N/A

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program:

BA in Computer Science

Academic Department:

Ira A. Fulton Schools of Engineering & New College of Interdisciplinary Arts and Sciences

School of Computing and Augmented Intelligence & School of Mathematical and Natural Sciences

Geographic Site:

Downtown Phoenix, Polytechnic, Tempe and West campus

Instructional Modality:

Both Campus and Digital Immersion

Total Credit Hours:

120

Proposed Inception Term:

Fall 2024

Brief Program Description:

The BA program in Computer Science provides the knowledge and skills to prepare students for entry-level software development positions. With less emphasis on math and theory, the program will attract a broader set of students to computing than ASU's existing BS offerings and provide opportunities for students to customize their degree with other areas of interest. This program will also serve to help grow the Fulton Schools of Engineering programs at the West campus. The program will be a joint initiative with Applied Computing faculty at the New College of Interdisciplinary Arts and Sciences.

The program equips students with essential computing fundamentals while empowering them with the flexibility to delve into diverse disciplines, preparing them for careers spanning a wide array of domains that demand both computational expertise and domain-specific knowledge. By placing a stronger focus on practical applications rather than mathematical theory, the program provides students with ample flexibility to customize their degrees according to their individual interests. This approach resonates with the university's overarching mission of enhancing accessibility and nurturing student achievements. The goals of the program are to instill in students the ability to recognize and define computing problems, the knowledge of which tools are needed to solve these problems, and the computing skills to apply or adapt the tools to solve these problems.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will be able to formulate a computing problem using foundational knowledge in programming and algorithm design.

- **Concepts:** computer programming, programming languages, data structure, algorithm design
- **Competencies:** Students will gain proficiency in computer programming and be able to recognize and model computing problems using foundational knowledge in computer science, and they will apply computer science knowledge and programming skill to solve the computing problems.
- **Assessment Methods:** The final exam in the Introduction to Programming Languages course assesses programming skills. The final exam in the Data Structures and Algorithms courses assesses the ability to formulate and solve computing problems with learned knowledge and tools. Data is collected from the students' final exam in the Introduction to Programming Languages and Data Structures and Algorithms course at least once a year. A faculty-developed rubric is provided in each course for consistency of evaluation and for communication of clear expectations.
- **Measures:** Each semester, the Undergraduate Programs Committee reviews the data and determines if corrective action is necessary. Assessment results are used for continuous improvement of the curriculum.

Learning Outcome 2: Students will be able to analyze data structures and software systems to determine their suitability for computing tasks, including the capabilities and limitations of each approach.

- **Concepts:** space complexity of algorithms, time complexity of algorithms, comparison of algorithmic performance, software systems, software testing
- **Competencies:** Students will use current techniques, skills and tools necessary for computing practice by applying mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems – in a way that demonstrates comprehension of the trade-offs involved in design choices. Students will have the ability to apply design and development principles in the construction of software systems of varying complexity. Additionally, students will be able to analyze the local and global impact of computing on individuals, organizations and society, and recognize the need for, and have an ability to engage in, continuing professional development.
- **Assessment Methods:** Exam questions in the Data Structures and Algorithms courses will assess a student's ability to use mathematical theories to analyze and compare the capabilities and limitations of different data structures and algorithms. Final exam questions in the Software Engineering course will assess students' competency in formal methods of testing varied software systems. A faculty-developed rubric is provided for both courses for consistency of evaluation and communication of clear expectations.
- **Measures:** Each semester, the Undergraduate Programs Committee reviews the data and determines if corrective action is necessary. Assessment results are used for continuous improvement of the curriculum.

Learning Outcome 3: Students will be able to work in a team on developing software systems from design stages to the tested and validated products.

- **Concepts:** teamwork, project management at different scales, technical communication, conflict resolution, project planning and maintenance
- **Competencies:** Students will develop the ability to interact with other technical team members, including effective technical communication and conflict resolution. Students will also learn about software project management strategies, including tools needed for distributed/team software project management, such as version control systems.
- **Assessment Methods:** In the course project in the Software Engineering course, students will be assessed on software development and testing strategies, as well as the student's ability to work in a team software-building environment. Data is also collected from the students' final project in the capstone course that focuses on such abilities (software development, teamwork and testing) in the context of the development of an application. A faculty-developed rubric is provided for both courses for consistency of evaluation and communication of clear expectations.

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- **Measures:** Each semester, the Undergraduate Programs Committee reviews the data and determines if corrective action is necessary. Assessment data will be used for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 150

Year 2: 250

Year 3: 350

Evidence of Market Demand:

Computer science degrees continue to be a good investment, as reported by USA Today "According to a new study by CareerCast.com, jobs in computer science for roles like data scientists and software engineers show the best growth potential in the next seven years. Health care is another big area for career growth, the study found. Past statistics from rjmetrics.com show there were about 11,400 and 19,400 data scientists worldwide, 52% of whom earned that position in the last six years. On LinkedIn this month, there were 8,916 open positions for data scientists, 72,800 open positions for software engineers..."

Lightcast data estimates that there were 53,304 jobs in computer science last year in the state of Arizona with a median salary of \$45.61/hr, and that between 2022-2027, there will be a 13.7% growth in this field (slightly faster than the national estimate of 13.4%). For software developers, Lightcast is predicting about 2,189 openings/year in the state of Arizona, with a median salary of \$52.97/hr and with a growth rate of 18.22% in the next five years. Software Quality Assurance Analysts and Testers are predicted to see an 18.36% increase in the field, with a median salary of \$40.99/hr.

Nationwide, Lightcast estimates that there were 2.3 million jobs in computer science last year, with a median salary of \$49.54/hr and an aforementioned predicted growth rate of 13.4% from 2022 to 2027.

The trends identified and predictions made in this report largely continue to be relevant in the current year.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona currently offers a BA in Computer Science in addition to their BS program, both located on the main campus.

Northern Arizona University has BS degrees in computer science, including Computer Science, BS; Computer Information Technology, BS; Computer Engineering, BS.

Objection(s) Raised by Another Arizona Public University?

YES NO

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Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Internal resources already allocated to the Ira A. Fulton Schools of Engineering and New College of Interdisciplinary Arts and Sciences will be reallocated to launch this program and student enrollment will support growth.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: None

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: PhD in Clean Energy Systems
Academic Department: Ira A. Fulton Schools of Engineering <i>The Polytechnic School</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 84
Proposed Inception Term: Fall 2025
Brief Program Description: <p>The PhD in Clean Energy Systems is designed to provide students with in-depth knowledge and skills required for designing, developing and evaluating systems within energy and autonomous transportation. Students will critically evaluate various clean energy sources and develop practical solutions to the energy sector mandate to increase clean energy technologies. With interdisciplinary approaches, the program's focus is on investigating the fundamental processes of clean energy conversion and storage by using scientific methods for sustainable transportation and industrial sectors. Students will be able to explore their specific research interests within the scope of the program.</p> <p>Apart from the core courses, the PhD program will have system-level design and developmental research on fuel cells, power electronics, batteries, automotive systems and renewable energy systems, including solar photovoltaics, wind, etc. PhD students will be encouraged to solve issues faced by clean energy systems companies in and outside Arizona through innovative research, aligning with the charge to advance research and discovery of public value in the ASU Charter. The program intends to enroll full-time PhD students and professionals from local energy industries with an aim to generate lead engineers and scientists in clean energy systems areas.</p>

This PhD program will attract electrical, electronic, chemical and mechanical engineers and scientists who are interested in distributed generation systems. Target employers include electric utility, gas/oil utility, manufacturing, and system integration companies. Another target group for this program includes general/mechanical engineers and technologists with an interest in nonconventional energy systems within automotive, electronic, medical, manufacturing and system integration companies. Lastly, this program will attract physical science students with an interest in employment in manufacturing industries and research/testing/certification organizations.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will synthesize theoretical and practical knowledge and skills required for conducting design and performance-related research for various clean energy systems.

- **Concepts:** renewable engineering systems, model-based systems, manufacturing systems, cyber resiliency, climate change, autonomous vehicles, designing and producing balanced and optimized clean energy systems
- **Competencies:** Students will have the ability to analyze the whole user experience, and quantitative skills pertinent to the design and development of clean energy systems through data analysis, state-of-the-art software skills, etc. In addition, they will have the ability to identify, specify, size and design clean energy systems and solutions to meet needs within realistic constraints including social, political, economic, ethical, health and safety, manufacturing, and/or sustainability.
- **Assessment Methods:** Students will be required to complete a qualifying examination in course EGR 792 Research that will be scored using a faculty-developed rubric. The exam will test students' competency in synthesizing theoretical and practical knowledge and skills required for conducting design and performance-related research for various clean energy systems. For indirect assessment, graduating students will also have an opportunity to rate the preparedness of the program using the Graduate and Law Student Report Card survey by responding to the question, "How strong was your graduate program in providing training in each of these additional areas: Engaging with the community to address global and local issues", on a five-point scale.
- **Measures:** A faculty-designed rubric will be used to assess the qualifying exam required when students are enrolled in EGR 692 Research. More than 75% of students will achieve 80% or more on the Qualifying Exam based on faculty's scoring of the rubric. Graduating students' responses to the Graduate and Law Student Report Card survey question, "How strong was your graduate program in providing training in each of these additional areas: Engaging with the community to address global and local issues," will be measured on a five-point scale with options including "very strong," "strong," "adequate," "weak," "very weak," in addition to "not applicable." Of students electing to respond to the report survey, 80% will respond either "strong" or "very strong" to the "research skills and methods."

Faculty and leadership will use this information to continuously review and revise both the curriculum and student experience where necessary. Data from assessments will be collected and shared with the faculty and used for continuous improvement.

Learning Outcome 2: Students will design a research question by reviewing the literature, synthesizing existing research, and identifying and accessing appropriate resources in the field of clean energy system ecosystem.

- **Concepts:** research design, research methods, data analysis, syntax, understanding of scholarly argumentation and reasoning in formal research, assessing peer reviewed publications, logical argumentations related to various clean energy sources, information literacy, model-based design, model-based analysis, research development and design theories and methods, review of scholarly literature
- **Competencies:** Students will have the ability to evaluate and report engineering findings on clean energy systems in an effective manner; analyze and select appropriate and state-of-the-art tools based on modeling programs; identify methods of and frame research problems for scholarly study; and synthesize the conventions of scholarly discourse in learning and teaching, including methods of finding and assessing peer-reviewed publications, logical argumentation, using appropriate vocabulary for critiquing the work of others, and identifying the purposes of and accurate formats for citation of others' work.
- **Assessment Methods:** Students will be assessed through a comprehensive examination based on all the core courses on Clean Energy Systems and the preliminary dissertation research by the dissertation committee members using a rubric. Students must complete 30 to 45 credit hours before enrolling in the last 10 credit hours of dissertation research before taking the comprehensive exam. Students will have a maximum of two attempts to complete the comprehensive exam. Indirect assessment on the outcome will be from a faculty committee-developed survey item that includes students electing to respond, "How was your specific research area within the clean energy systems program designed to improve sustainability in reducing carbon footprint?"
- **Measures:** A faculty-designed rubric will be used to measure the comprehensive examination based on all the core courses on Clean Energy Systems (batteries/fuel cells, solar PV systems, power electronics/systems, connected and autonomous vehicles, etc.) and the preliminary dissertation research. More than 75% of students admitted to the PhD program will pass the comprehensive examination and preliminary dissertation research, scored using a faculty-designed scale. For the faculty-developed survey question, "How was your specific research area within the clean energy systems program designed to improve sustainability in reducing carbon footprint?", 80% will respond either "strong" or "very strong".

Faculty and leadership will use this information to continuously review and revise both the curriculum and student experience where necessary.

Learning Outcome 3: Students will design and carry out an original research study on energy-efficient systems and defend their dissertation to a doctoral committee.

- **Concepts:** research design, research methods, data analysis, syntax, understanding scholarly argumentation and reasoning in formal research, assessing peer-reviewed publications, logical argumentations related to various clean energy sources
- **Competencies:** Students will be able to accurately form and frame a research topic; consider a wide variety of research sources and assess their quality; conduct a research study, collect data, and quantitatively analyze the data; write papers using appropriate vocabulary to critique the work of others and to express independent ideas; and write papers and a dissertation in appropriate formats, with accurate citations.
- **Assessment Methods:** All students are required to complete a PhD dissertation and pass the oral defense in a chosen specific research area (batteries/fuel cells, solar PV systems, power electronics/systems, connected and autonomous vehicles, etc.) scored using a rubric set by the faculty committee. The written dissertation will be evaluated and scored by a faculty committee. The comprehensive oral defense of the research dissertation will also be evaluated by the faculty committee, who will assess students' ability to defend their research successfully. Indirectly, students will complete a program survey that includes the question, "How effective is your dissertation research within clean energy systems in reducing carbon footprint?"
- **Measures:** Faculty-designed rubrics will be used to score the students on the dissertation and oral defense. For the dissertation, 80% of students are expected to pass on the first submission. For the comprehensive oral defense, 80% of responders will be expected to score "pass" on the faculty rubric. The program survey question, "How effective is your dissertation thesis research within clean energy systems in reducing carbon footprint?" will be measured with a five-point scale with options including "very strong," "strong," "adequate," "weak," "very weak," in addition to "not applicable." Of students electing to respond to the program survey, 80% will respond either "strong" or "very strong" to the "research skills and methods."

Faculty and leadership will use this information to continuously review and revise the curriculum and student experience where necessary. Data from assessments will be collected and shared with the faculty and used for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 5
Year 2: 10
Year 3: 20

Evidence of Market Demand:

Engineering workforce development in renewable energy areas is one of the essential components in meeting the 21st century's clean energy demand in reducing carbon footprints. According to the U.S. Bureau of Labor Statistics (BLS, 2022), green jobs in five categories are (i) scientific research, (ii) power engineering, (iii) manufacturing, (iv) plant design/development, and (v) plant construction. The goal is to generate PhD graduates in (i)

alternative/renewable energy technologies (wind power, solar PV, batteries and fuel cells), (ii) power engineering and system integration and power management, and smart and autonomous transportation by leveraging courses along with in-depth, model-based and experimental research. As per the U.S. Energy Information Administration, the electric power sector operated about 74 GW of solar photovoltaic capacity at the end of 2022, which is about three times the capacity at the end of 2017. U.S. wind power has grown by more than 60% since 2017 to ~143 GW. Considering the exponential growth of the renewable energy industry, it is imperative to generate PhD graduates specialized in renewable energy technologies, systems, and management.

According to Lightcast Q2 2021 Data Set, the total posted occupations from April 2019 to April 2021 totals more than 77,000 job postings in the following categories of Energy Engineers (63,549), Wind Energy Project Managers (7,289), Solar Energy Installation Managers (2,968), Solar Energy Systems Engineers (1,868), Wind Energy Engineers (1,375) and Fuel Cell Engineers (174) and so on.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona and Northern Arizona University do not have PhD programs in Clean Energy Systems. Similar programs with different focuses are offered, included below:

University of Arizona:

PhD in Environmental Engineering: <https://grad.arizona.edu/catalog/programinfo/EENPHD>

Northern Arizona University:

PhD in Earth Sciences and Environmental Sustainability: Emphasis in Earth Systems: https://degree-search.nau.edu/degree/ESENSUSPHD_EAPLSYSM

PhD in Earth Sciences and Environmental Sustainability: Emphasis in Climate and Environmental Change: https://degree-search.nau.edu/degree/ESENSUSPHD_CLLSCM

This unique PhD in Clean Energy Systems program in The Polytechnic School of the Ira A. Fulton Schools of Engineering at Arizona State University is supported by 12 faculty members with expertise in fundamental and applied research aspects of clean energy systems. The major focuses of this proposed program are designing, developing and demonstrating clean energy systems within the areas of solar photovoltaic systems and batteries/fuel cells for automotive, stationary and portable applications, enabled through power electronics and power systems. Whereas, the programs at the University of Arizona and Northern Arizona University focus more on the following environmental components: water and wastewater treatment science and technology, hazardous waste treatment, natural resource and hazards research, and climate science.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

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Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing Fulton School of Engineering resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: Not applicable.

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: None

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: MS in Management of Technology
Academic Department: Ira A. Fulton Schools of Engineering <i>The Polytechnic School</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: Fall 2025
Brief Program Description: The MS program in Management of Technology prepares students with existing STEM backgrounds to lead in innovation, intrapreneurship and complex management challenges in emerging and high-tech markets. In addition, this degree prepares students with a combination of entrepreneurial skills, leadership management and evidence-based decision-making methodologies to apply their cutting-edge technology skill sets to solve complex and competitive problems in industry, as well as enabling them to make an impact in the communities they serve. The program combines disciplines of engineering, leadership and technology management, and it infuses tech professionals with entrepreneurship and intrapreneurship principles in the context of innovation methodologies. Students will learn through applied simulated and experiential projects, internships and consulting. Students can design their technical electives to align new skills with their professional goals. Graduates can work for technology-driven companies, including software-driven companies like Amazon and Google and integrated hardware companies like Tesla and Intel.

The MS aligns with several of ASU's design aspirations as a New American University, namely, valuing entrepreneurship within existing and new organizations, fusing intellectual disciplines with flexible scheduling across schools and colleges, and engaging globally with both students and industry.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will analyze solutions to management of technology problems through the process of designing and implementing in an applied practice.

- **Concepts:** entrepreneurial mindset and dynamics, start-up organization, data-driven decision-making, disruptive innovation, behavioral economics, technology evolution, innovation management, sustainable innovation, intellectual property strategy and development, venture innovation, technical leadership, project management skills
- **Competencies:** Students will have the ability to apply theoretical and practical modeling to evaluate the results, using techniques such as strategic thinking; organization development; customer discovery process; innovation portfolio management; project scoping, planning, budgeting, scheduling and tracking; trademark, patent and copyright strategy; risk and game theory; data integrity; data communication; future forecasting; and AI-assisted innovation methodologies.
- **Assessment Methods:** Portfolio (independent project not linked to a course) or Applied Project Report (in Applied Project course) based on a scaled four-point rubric. Utilizing a scoring rubric, faculty will evaluate the performance of students. 80% of students will earn a rating of 3 or higher on a four-point scale rubric. Students' final assessment of the cumulative work consists of an applied project (AP) or Portfolio that is evaluated in the final semester of the graduate candidate by their appointed faculty advisor. The AP or Portfolio initial draft is reviewed by the student's faculty advisor; required edits, adjustments or redrafts will be communicated to the student; and the student will resubmit for evaluation and scoring via a four-point or pass/fail rubric, respectively. If the AP passes, the scoring is recorded in the AP Canvas course and communicated with Graduate Advising. If the Portfolio passes, the scoring is recorded on the Portfolio Evaluation Form (in the student handbook) and submitted along with the final Portfolio to Graduate Advising. The formative assessment of the outcome is measured via the final exam in the Data-Driven Decision-Making course. The exam is split into four types of questions: situational, knowledge-based, strategic thinking, and data analysis. A standard four-point rubric is used for the final exam.
- **Measures:** Students will demonstrate the outcome through a written Portfolio (independent project not linked to a course) or Applied Project Report (in Applied Project course) based on a scaled four-point rubric. Students must demonstrate the outcome through a final exam in the Data-Driven Decision-Making course. The exam is split into four types of questions: situational, knowledge-based, strategic thinking, and data analysis. A standard four-point rubric is used for the final exam.

Assessment data will be shared with faculty annually and used for continuous improvement of the curriculum.

Learning Outcome 2: Students will effectively communicate complex management of technology solutions in a course project.

- **Concepts:** technical communication, data-derived communication for strategic enterprise decision-making, verbal technical communication
- **Competencies:** Students will have the ability to demonstrate communication skills through coursework which reinforces: effective technical writing, effective verbal communication, converting data to infographics, converting complex data to leadership-centered understanding, and the development of enterprise-level strategic decisions.
- **Assessment Methods:** In the Disruptive Innovation & Technology Evolution course, students are evaluated on a written, final innovation management project summary with a 0-100-point scale rubric. The assessment process for this outcome is a direct evaluation of a written summary of seven research assignments. The scoring rubric process is 100 points for the Final Summary. The instructor of the Disruptive Innovation & Technology Evolution course grades the written artifact. The qualitative indirect measure of Outcome 2 is acquired during the student's final semester in an "Exit Interview" survey as part of their portfolio submission process. Likert scale and free response questions will give the program better insight into the student success perspective.
- **Measures:** In the Disruptive Innovation & Technology Evolution course, students are evaluated on a written final innovation management project summary with a 0-100-point scale rubric. Students will take an "Exit Survey" as part of the Portfolio submission process during their last semester to qualitatively measure learning from the student perspective. Likert scale questions with 1 (lowest performing) to 5 (highest performing) will be asked of the students. Question scores of the students will be acquired and analyzed for perceptions. Sample Survey Item: "On a scale from 1 (Not effective) to 5 (Extremely effective), how would you rate your ability to communicate complex management technology solutions effectively?"

The data will be compiled and a feedback meeting will be conducted with the program faculty to foster continuous improvement in addition to the annual program assessment. Assessment data will be shared with faculty annually and used for continuous improvement of the curriculum.

Learning Outcome 3: Students will work effectively as an integral team to identify, plan and execute technology-based projects.

- **Concepts:** technical project identification, strategization, planning and budgeting; team management; conflict management; team dynamics; team communications; project tracking
- **Competencies:** Students will demonstrate the ability to work collaboratively through practice, management of team conflict, understanding of team performance life

cycles, and effective communication; to work with accountability; and to work professionally with others when performance expectations are present.

- **Assessment Methods:** Students will demonstrate the outcome through a team-based written Development Project Plan in the Advanced Project Management course. The 100-point rubric is evaluated on all of the sections of the plan, professional formatting and technical writing skills. Students must demonstrate the outcome through their Final Presentation of a team-based project in the Strategic Management of Technology course. A standard four-point rubric is used for presentation evaluations. Students are assessed at a formative level in this course as it is a first-semester course for most students.
- **Measures:** For the Advanced Project Management course, the student artifact is the Development Project Plan, assessed with a 100-point rubric. For the Strategic Management of Technology course, the student artifact is the Final Presentation, assessed with a four-point rubric. Assessment data will be shared with faculty annually and used for continuous improvement of the curriculum.

Projected Enrollment for the First Three Years:

Year 1: 40

Year 2: 75

Year 3: 150

Evidence of Market Demand:

The MSTech in Technology, Management of Technology concentration on the Polytechnic campus has had significant demand growth of 200%-300% year-over-year since the redesign of the program in 2020, from 5 students to over 150 students by Fall 2023. A significant source of interest in this program is from international engineering students wanting to study in the US, about 90% of the student base. Based on alumni feedback from former students in the MSTech concentration in Management of Technology and input from the industry advisory board, an MS degree in Management of Technology is even more desirable. Upon establishing this degree, the unit will propose to disestablish the Management of Technology concentration of the MSTech in Technology degree. This is one of the last remaining programs that has yet to convert to the MS standard in concert with all of the engineering programs.

Since the school's students originate from various engineering and science backgrounds, alumni from the Management of Technology concentration currently work in a wide variety of growing fields. A sample of those are as follows, with the U.S. Bureau of Labor Statistics employment growth rate for 2021-2031 noted for each: Data Analyst-Technical Services (41.9%), Business Analyst (12.6%), Market Research Analyst-Technical Services (24%), Management Analyst-Technical services (12.6%), Manufacturing Director-Technical Services (8.1%), Marketing Manager-Technical Services (12.6%), Chief Technology Officer-Technical Services (21.1%), Industrial Production Manager-Technical (8.1%), Quality Assurance Inspector-Technical services (28.4%), Software Developers and Software Quality Assurance Analysts and Testers (25%), and Top Executive/Founder (6% with 189,000 new positions between 2021-2031). In addition, the industry growth rate for Artificial Intelligence

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(AI)/Machine Learning (ML) Entrepreneurs is projected to be 33.2% between 2020-2027, while Technology Innovation has a projected growth rate of 13% between 2020-2030.

In the modern tech environment, companies must develop continuous innovation cycles to thrive and remain relevant. The value that corporations find in graduates is the ability of students to understand the technical challenges and opportunities along with business demands. This unique composition of skills makes graduates extremely valuable relative to non-engineering trained students. According to an article in the [Indeed Career Guide](#) and based on their employment data, engineering master's degree programs with management and leadership training prepare professionals for advanced engineering and managerial roles. The intrapreneurship and innovation development training of students helps companies in new product development, building efficiency, sustaining growth, and creating disruptive innovation.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers an [MS in Technology Management](#) and an [MS in Management Information Systems](#). While the latter program is focused more on learning complex technology skills to manage information systems, the MS in Technology Management is similar to the proposed MS in Management of Technology at ASU in its focus on building knowledge and skills to effectively manage in high-tech markets. The uniqueness of the proposed MS in Management of Technology program lies in its inclusion of innovation and entrepreneurship focused courses, including courses in Technological Innovation and Entrepreneurship; Disruptive Innovation and Technological Evolution; Venture Digital Data Analytics; and Crowdfunding, Currency and Blockchain Innovations.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing Fulton Schools of Engineering resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: Not applicable

Program Fee Justification: Not applicable

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Specialized Accreditation?	YES	NO
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Accreditor: None required.

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: MEd in Early Childhood Special Education
Academic Department: Mary Lou Fulton Teachers College <i>Division of Teacher Preparation</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The Master of Education in Early Childhood Special Education supports Arizona State University's charter by preparing graduates to support and advocate for young children with a variety of abilities and needs. This program will prepare graduates to work with children, from birth to age 8 or grade 3, who have or are at risk for developing a disability. Students will develop advanced skills in child development theories and practice, high-leverage and evidence-based practices, and healthy early learning environments that foster child development and learning in partnership with families and other professionals. Graduates will be able to assess young children's development and learning, use data to plan for instruction and intervention, monitor and report on child progress, and use effective practices for engaging families.</p> <p>The Early Childhood Special Education program blends content, goals and outcomes from the current MEd in Early Childhood Education and the MEd in Special Education, including coursework from both programs. Weaving together the two areas allows for deeper understanding of early childhood special education and aligns closely with national trends in early childhood special education teacher preparation, and it positions students to more comprehensively recognize the signs of developmental delays and disabilities to improve</p>

trajectories for all young learners with regard to health, language, physical, cognitive, social and emotional development. Additionally, this degree program allows students to explore the education of birth - grade 3 students with and without exceptionalities and to advance their understanding of the role of family, community, collaboration and advocacy for advancing educational access, opportunity and outcomes for young learners.

This program will prepare students to meet the Arizona Department of Education certification requirements for the [Early Childhood Special Education, Birth through Grade 3](#) certificate. This is a different certification than the standalone Early Childhood and Special Education programs. The addition of the MEd in Early Childhood Special Education provides greater options and opportunities for master's degree candidates and those seeking Arizona certification for Early Childhood Special Education.

There are many roles that require or benefit from early childhood special education expertise where professionals serve young learners and families such as nonprofit organizations, government agencies, health service organizations and private organizations. Therefore, the standalone master's degree does not lead to teacher certification. This degree will allow students who begin on the MEd plus certification route to continue their degree should they decide they no longer are interested in Arizona teaching certification and prefer a career that serves this population outside of the classroom. It will also allow students who do not need certification (e.g., those with a current certification, those who teach in locations outside of the U.S. who need the degree but not a U.S. teacher certification) the opportunity to get a master's degree in Early Childhood Special Education to advance in their prospective or current career. Students interested in certification will enroll in a separate teacher certification concentration.

Teacher Certification concentration

Graduates of the teacher certification concentration will earn eligibility for an institutional recommendation for an Early Childhood Special Education credential through the Arizona Department of Education.

Similar to the MEd in Early Childhood program, the MEd in Early Childhood Special Education program would offer the opportunity for initial teacher licensure. Through the completion of two internships (Internship 1: Preschool, Internship 2: K-3) and Residency, with placements required in both populations in any combination of internship and student teaching, candidates will meet ADE requirement R7-2-604 for serving children with exceptionalities from birth through preschool and kindergarten through grade three. The addition of this concentration provides greater options and opportunities for master's degree candidates and closely aligns to national trends and best practices.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply research and professional literature interpretations to their culturally and evidence-based responsive practices.

- **Concepts:** learning theories, developmentally appropriate practices, high-leverage practices (HLPs), evidence-based practices in special education (EBPs), culturally-responsive practices, quality indicators for special education research, skills to critically evaluate research for decision-making

- **Competencies:** Students will be able to demonstrate their ability to utilize national research centers, U.S. Department of Education What Works Clearinghouse (WWC) resources, other policy institutes, and the ASU Library to identify research- and evidence-based practices, and culturally responsive practice; identify the sources of evidence and resources and select those with high credibility; and utilize research databases to locate topically-relevant, peer reviewed research articles and literature for early childhood special education research- and evidence-based practices as well as culturally responsive practices to develop learning plans for young children with and at risk for disabilities.
- **Assessment Methods:** Students will complete an evidence-based practices research project in the course, Foundations of Typical and Atypical Child Growth and Development. The successful completion of this project will show the student's competency in their response to a problem of practice in early childhood special education where they will be expected to identify and apply research- and evidence-based practices and culturally responsive practices to children's development and learning. The second measure will be a proposed learning plan assessed using a faculty-created rubric in the Appropriate Instructional Methodologies for Young Children course. The rubric will assess evidence of teachers' knowledge of young children with disabilities and practices that promote inclusive learning experiences as applied across early learning contexts. The rubric will be developed by the course subject matter expert in alignment with the course student learning outcomes and program learning outcomes that are aligned to Interstate Teacher Assessment and Support Consortium, Council for Exceptional Children, and National Association for the Education of Young Children professional standards. The rubric assesses the quality of the learning plan to meet the course student learning outcome (SLO), students' reflection on their learning, justification for the selection of the evidence in meeting the SLO.
- **Measures:** Students will be assessed on a final evidence-based practices research project in the Foundations of Typical and Atypical Child Growth and Development course and the learning plan in the Appropriate Instructional Methodologies for Young Children course, which will be scored using a standardized rubric (three criteria: explanation of evidence, evidence submitted, justification of how the evidence demonstrates master of the SLO - 20 point total using item scale: 'distinguished', 'proficient', 'developing', 'improvement needed') developed by faculty and aligned to InTASC, Council for Exceptional Children, and NAEYC professional standards. The outcome will be met if at least 90% of students meet criteria for proficient or above on the faculty-developed common assessment rubric.

Data collection will examine patterns in student achievement and continuous improvement of the program. Data will be collected and will be analyzed by the course coordinator, lead faculty, program area leads, continuous improvement and curriculum topical action groups (TAGs), and program leadership, as appropriate, to determine appropriateness of instruction and instructional resources and to examine in order to inform improvements to program curriculum, instruction and student support.

Learning Outcome 2: Students will evaluate strengths, needs and progress of diverse young learners using practices of Principled Innovation.

- **Concepts:** assessment terminology, state and federal laws, assessment bias, developmental assessments, principles of Principled Innovation
- **Competencies:** Students will be able to demonstrate knowledge by appropriately using assessment terminology and applicable state and federal laws for the provision of assessment in early childhood special education settings; explore and identify practices that minimize the impact of bias using the principles of Principled Innovation, including collaborations with families, considering developmental history and cultural practices, and reflective practice; and analyze data from a variety of assessments with young students and make instructional recommendations based on assessment results.
- **Assessment Methods:** In the Evaluation and Intervention Strategies for Infants, Toddlers and Preschoolers with Disabilities course, students will develop instructional plans with the following components: Students will work with a student or case study to identify appropriate educational early childhood special education assessments. Students will work with families or records of the family. They will administer, score, interpret and use results for developing an instructional plan. In the Creating Equitable Learning Environment: Decision Making and Action course, students will conduct a functional behavioral assessment (FBA) and Behavior Intervention Plan (BIP). Students will conduct and apply the FBA to develop a BIP, in accordance with the Individuals with Disabilities Education Act (IDEA, 2004) and best practices as described in professional standards (Interstate Teacher Assessment and Support Consortium, Council for Exceptional Children, and National Association for the Education of Young Children). Students will be assessed on how issues of bias are minimized and the degree to which families participate in the process for their child. Students will complete an assessment project, assessed with a faculty-created, standardized rubric used to evaluate proficiency. The assessment criteria and rubric are aligned with professional standards (InTASC, Council for Exceptional Children, NAEYC) and federal law: IDEA, 2004.
- **Measures:** Students will be assessed on their ability to complete an educational instructional plan in the Evaluation and Intervention Strategies for Infants, Toddlers and Preschoolers with Disabilities course and in the Creating Equitable Learning Environment: Decision Making and Action course using a faculty-designed rubric (three criteria: explanation of evidence, evidence submitted, justification of how the evidence demonstrates master of the SLO - 20 point total using item scale: 'distinguished', 'proficient', 'developing', 'improvement needed') used for data collection to examine patterns in student achievement and continuous improvement of the program. At least 90% of students will meet or exceed proficiency levels on the faculty-developed rubric.

Data will be collected and will be analyzed by the course coordinator, lead faculty, program area leads, continuous improvement and curriculum topical action groups (TAGs), and program leadership, as appropriate, to determine appropriateness of instruction and instructional resources and to examine in order to inform improvements to program curriculum, instruction, and student support.

Learning Outcome 3: Students will complete an applied research project demonstrating their knowledge and skills of early childhood special education theory, practice and policy.

- **Concepts:** educational theories, state policy, state and federal laws, evidence-based practices, high leverage practices, quality indicators of special education research, terminology, research and professional writing
- **Competencies:** Students will have the ability to identify and use research evidence and information to provide a background for their problem of practice (research question); use the research literature and theory to design a solution (proposed intervention), and design a plan for testing that solution with the intended interested party (research method, e.g., young children with or at risk for disabilities, families of young children, professionals who serve these children).
- **Assessment Methods:** Students will be assessed on this outcome in their Applied Project course. First, students will conduct an applied research project, assessed using a faculty-developed Common Assessment Rubric. They will identify a problem of practice and use research evidence and other credible information to provide a logical and complete argument for the selection of this problem and the need for a solution. They will identify shortcomings in current practice or policy and justify the need for a solution. Second, they will identify a feasible and principled solution using a faculty-developed Common Assessment Rubric to evaluate proficiency. Students will prepare a research- or evidence-based and culturally responsive solution that will be assessed on the use of research, information and theory to provide the foundational argument for the problem of practice. Students will then ensure solutions are feasible for implementers, informed by data, and in accordance with state and federal policy and law. The applied project may be submitted as a research paper, or presentation (recorded) and written report using a variety of media, as appropriate for their project topic. The assessment criteria are aligned with professional standards (Interstate Teacher Assessment and Support Consortium, Council for Exceptional Children, and National Association for the Education of Young Children) and federal law: the Individuals with Disabilities Education Act (IDEA, 2004).
- **Measures:** Students will be assessed on the applied research project that identifies a problem of practice and then proposes a solution. The project will be scored using a 20-point rubric (“distinguished,” “proficient,” “developing,” “improvement needed,”) used for data collection to examine patterns in student achievement and continuous improvement of the program. 85% of students will earn a proficient or better on the faculty-developed common assessment rubric for the project.

Data will be collected and will be analyzed by the course coordinator, lead faculty, program area leads, continuous improvement and curriculum topical action groups (TAGs), and program leadership, as appropriate, to determine appropriateness of instruction and instructional resources and to examine in order to inform improvements to program curriculum, instruction and student support.

Projected Enrollment for the First Three Years:

Year 1: 25

Year 2: 75

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Year 3: 150

Evidence of Market Demand:

According to the Bureau of Labor Statistics, overall employment of people who hold an early childhood special education degree is projected to grow 7% from 2022 - 2032, which is faster than the average occupation growth rate. About 6,600 openings are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force. The median annual wage for health education specialists was \$59,990 in May 2022. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10% earned less than \$37,140, and the highest 10% earned more than \$106,210. Individuals with this type of degree are employed in a variety of settings, including hospitals, nonprofit organizations, various education settings and government agencies.

In addition, according to Lightcast Analytics, in Arizona for those with this type of degree, Early Childhood Special Education, job growth is projected to increase by 39% from 2020 - 2030. The national average within the United States for job growth in this field is 54%.

Similar Programs Offered at Arizona Public Universities:**Northern Arizona University:**

- MEd Special Education - Early Childhood Special Education - Emphasis

This program is very similar to the proposed program. It is a 30-credit master's program with an emphasis on Early Childhood Special Education. Offered online and in person.

University of Arizona:

- Teacher and Teacher Education (MA) - Early Childhood Education

This is a 5-semester program of 33 total credits. This degree focused on early childhood with no specific content for children with and at risk for disabilities. This appears to be an immersion program offered on the main campus in Tucson.

- Special Education (MA) Mild-Moderate Disabilities

This is a 36-credit teacher certification program. It does not meet state certification requirements for early childhood special education certification. This appears to be an immersion program offered on the main campus in Tucson.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

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No additional state resources will be required as existing Mary Lou Teachers College resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? **YES** **NO**

Estimated Amount: \$900 per semester, \$100 per credit hour

Program Fee Justification: This program will be assessed the existing, approved MEd program fee. The primary purpose of the program fee is to provide support for course design, development and instruction.

Specialized Accreditation? **YES** **NO** (concentration only)

Accreditor: The standalone master's degree does not lead to teacher certification. Students interested in certification will enroll in the separate Teacher Certification concentration.

The Arizona Department of Education approves programs leading to state certification. The approval allows the university to provide Institutional Recommendations to students upon successful program completion. This eliminates the need for the Arizona Department of Education to conduct a transcript analysis to examine if certification requirements for education and clinical experience are met.

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program:

MA in Interdisciplinary Education on Community Health and Well-being

Academic Department:

Mary Lou Fulton Teachers College

Division of Educational Leadership and Innovation

Geographic Site:

Downtown Phoenix, Polytechnic, Tempe and West campus

Instructional Modality:

Both Campus and Digital Immersion

Total Credit Hours:

30

Proposed Inception Term:

Fall 2024

Brief Program Description:

The proposed MA program in Interdisciplinary Education on Community Health and Well-being will prepare graduate students to contribute to the overall health of the communities they serve by working in community and school programs promoting health and well-being. Graduates will work in diverse educational settings (e.g., schools, community centers and adult educational programs) with responsibility for improving health and well-being. The program is aligned with ASU's design aspirations, in particular, 'Fuse Intellectual Disciplines' and 'Be Socially Embedded' as students will work across intellectual disciplines to solve socially embedded issues. They will design innovative interprofessional solutions to community health problems and issues around disparities, and will advance health equity. The program will prepare students with the knowledge and skills to improve their understanding and respect for all persons, develop creative and innovative systems-level thinking, and reimagine health programming to improve physical activity and overall health and wellness.

This flexible degree program draws from existing resources as a way to prepare professionals with the necessary interprofessional competencies in the areas of social work, education, and community resources and development needed to lead community health programs in community organizations and schools. This program promotes collaboration among all professionals promoting health outcomes. Arizona ranks in the bottom quartile of health system performance indicators. This new program will improve health system performance by increasing qualified interprofessionals working in community organizations and schools, thus establishing a continuum of supportive services among clinical, community and education sectors, and connecting communities through numerous beneficial partnerships.

This program will incorporate coursework from other academic units, including Watts College of Public Service and Community Solutions' School of Social Work and School of Community Resources and Development. By incorporating the strengths of ASU's community-focused academic units, students will have a broader understanding of the problems communities face and provide more effective problem solutions. The degree will emphasize the dimensions of wellness and how they can be used to develop, implement and evaluate health promotion programs to improve health and quality of life. The interdisciplinary nature of this degree is unique as students take classes and gain experiences across units in areas including educational principles and practices, community development, recreational therapy and leisure, social work, planning and evaluation in health and wellness, and community development.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will apply in their internships the Interprofessional Collaborative Competencies Attainment Survey (ICCAS) team-based interprofessional practice competencies expected of professionals advancing community health outcomes.

- **Concepts:** communication, collaboration, roles and responsibilities, collaborative patient-family centered approach, conflict management and resolution, team functioning skills, how to positively impact community health outcomes
- **Competencies:** Students will have the ability to apply the dimensions of interprofessional competencies based on ICCAS theories and practices to the identified needs of the communities being served in their internships.
- **Assessment Methods:** Students will complete an internship where they will be required to demonstrate proficiency in interpersonal collaborative competencies identified by the National Center for Interprofessional Practice and Education using the Interprofessional Collaborative Competencies Attainment Survey (ICCAS): <https://nexusipe.org/advancing/assessment-evaluation/interprofessional-collaborative-competencies-attainment-survey-iccas>. This standardized instrument rates students' baseline perceptions on the dimensions of interprofessional collaborative practice including: communication, collaboration, roles and responsibilities, collaborative patient-family centered approach, conflict management/resolution, and team functioning. An internship supervisor will observe and assess the student's ability to utilize the ICCAS principles in practice during their internship experience to assess observations using a five-point, faculty-designed rubric. The Mary Lou Fulton Teachers College Office of Data Strategy and Compliance will administer the data compilation and provide results to the program faculty for interpretation and planning. The program's faculty will meet annually to review results and will adjust the curriculum or make other continuous program improvements as indicated. The MLFTC Office of Data Strategy and Compliance will collect data using designated instruments and provide results annually for faculty to review for continuous improvement efforts.
- **Measures:** By proving competence in applying the ICCAS principles, student internships provide real-world experience and allow students the opportunity to recommend solutions to current problems. Internship supervisors will determine if students are competent in recommending effective solutions by scoring them using a five-point faculty-developed rubric using the ICCAS dimensions. The outcome will be met if at least 80% or more students are rated as competent or above on the internship rubric based on collaboration competencies of the ICCAS. Compiled data will be reviewed annually to ensure students are meeting program expectations.

Learning Outcome 2: Students will design innovative interprofessional solutions to community health problems/issues around disparities and advance health equity.

- **Concepts:** civic knowledge and engagement, creative thinking, integrative and applied learning, inquiry and analysis to effective solutions to community health issues in the communities students will serve
- **Competencies:** Students will be able to utilize the service plan developed around their chosen critical community health issues to develop innovative interprofessional solutions including policies, processes and procedural solutions addressing the reduction of disparities and advancing health equity for the identified priority

populations from an interdisciplinary perspective and collectively plan for program implementation and evaluation.

- **Assessment Methods:** Students will be reviewed on their final portfolio using the following criteria: a professional statement about the student's background, identity and ethical values; a brief summary of the student's experience in the program; identification of the key skills that the student has gained in the program that are relevant to the student's career path as a professional; and a final service plan written report that addresses how they used their skills and knowledge gained in the program to provide a solution to a critical community health issue. The portfolio will be used to assess the student's integration of knowledge and skills and application of that expertise across community practice and research related to their proposed solution responding to a community health issue. Using a faculty-designed rubric and the following four innovative interprofessional solutions, students will generate the final report recommending policy, processes and procedural improvements to effectively address the identified critical community health issue. The four innovative interprofessional solutions are: (a) civic knowledge and engagement, (b) creative thinking, (c) integrative and applied learning, and (d) inquiry and analysis. Using the policy, process and procedural recommendations, students will be assessed in the areas of professional identity and ethics as well as the application of skills and knowledge related to planning, implementation and evaluation of the proposed health issues solution. In addition, students' preparedness for post-graduation careers or future studies will be assessed by the Office of Data Strategy and Compliance using the Graduating Senior Report Card.
- **Measures:** Students' portfolio documents and final service plan reports will be collected using ASU's Digication portfolio system. Faculty will use a faculty-designed rubric to assess the students' use of their integration of knowledge, skills and application of that expertise in the provided documents and written service plan report that provides a possible solution to a community health issue. The outcome will be met if students pass the inquiry and analysis, and the disparity impact criterion with an 80% or above grade on each of the three rubric items, all based on a five-point scale.

The Mary Lou Fulton Teachers College Office of Data Strategy and Compliance will pull the data and create a report based on portfolio summaries. The program's lead, representing each ASU academic unit, will meet annually to review results and will adjust the curriculum or make other continuous program improvements. Compiled data will be reviewed annually to ensure students are meeting program expectations.

Learning Outcome 3: Students will critique critical community health issues to incorporate applicable etiology frameworks and theory into the implementation of effective service plans as part of their culminating experience portfolio.

- **Concepts:** etiology, causal factors, theory, problem analysis, community needs assessment, secondary data analysis, primary data collection, research methods, evaluation, bias, ethics, values, cultural responsiveness, social justice, social determinants of health, resiliency, effectiveness-based planning

- **Competencies:** Students will be able to incorporate applicable etiology frameworks and theories to demonstrate critical thinking skills related to critical community health issues in addition to using data analysis skills and a community service perspective. In addition, students will be able to demonstrate knowledge in methodology evaluation, program theory application, and assess potential data collection biases using culturally sensitive and ethical practices to develop and implement effective service plans.
- **Assessment Methods:** Students will complete an internal service plan report where they will be required to demonstrate proficiency in interpersonal, collaborative competencies identified by the National Center for Interprofessional Practice and Education. In addition, students will also demonstrate critical competencies in cultural sensitivity and the dimensions of interprofessional collaborative practice during the development of the "Effective Service Plan" and Community Health Issue Assignment (CHIA) in core coursework. The Community Health Issue Assignment results will be included in the culminating experience portfolio and will be evaluated by faculty to determine overall competency.
- **Measures:** The plan report, the effective service plan, and the Community Health Issue Assignments included in the student's portfolio will each be assessed using a standardized instrument with a five-point scale to rate students' baseline competencies on the dimensions of critical thinking, methodology evaluation, program theory application, and assessing data collection biases. This standardized instrument rates students' baseline perceptions of the dimensions of interprofessional collaborative practice. Faculty will use results for continuous program improvement efforts. The outcome will be met if at least 80% of students who have an average score of 3 out of 5 across the four criteria: (a) civic knowledge and engagement, (b) creative thinking, (c) integrative and applied learning, and (d) inquiry and analysis.

The Mary Lou Fulton Teachers College Office of Data Strategy and Compliance will administer the data compilation and provide results to the program faculty for interpretation and planning. The program's faculty will meet annually to review results and will adjust the curriculum or make other continuous program improvements as indicated. The MLFTC Office of Data Strategy and Compliance will collect data using designated instruments and provide results annually for faculty to review for continuous improvement efforts. Compiled data will be reviewed annually to ensure students are meeting program expectations.

Projected Enrollment for the First Three Years:

Year 1: 25
Year 2: 50
Year 3: 100

Evidence of Market Demand:

Overall employment of health education specialists and community health workers is projected to grow 12% from 2021 to 2031 according to the Bureau of Labor Statistics, which is much faster than the average for all occupations*. About 16,000 openings for health

education specialists and community health workers are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force.

The BLS data also show selected occupations (health education specialists, counselors, social workers and other community and social service specialists that support wellness education) are projected to have strong growth and many openings from 2021 to 2031 – with most having wages that were higher than the median for all workers in 2021. Employment in these selected wellness occupations is projected to grow from about average to much faster than the 5% average for all occupations over the decade. Source: Bureau of Labor Statistics

According to Lightcast Analyst, in 2021, the median compensation for Health and Wellness Educators in the United States is \$60,590. The number of unique postings for this job from Jan. 2020 - Apr. 2023 was 155,900. Potential growth from 2020 - 2030 in this field is 9.4%, with a growth of about 5,500 jobs in the United States.

*Note: All Occupations includes all occupations in the U.S. economy.
Source: U.S. Bureau of Labor Statistics, Employment Projections program

Similar Programs Offered at Arizona Public Universities:

The program is a master's degree with interdisciplinary coursework in social work, educational principles, community development, health and wellness, as well as leisure and recreational therapy. It will transform society by promoting health across community and educational settings. It differs significantly from a number of existing programs currently offered in the state as follows:

NAU: Health Promotion, MPH

This program differs from the proposed MA program since it is focused on core areas of public health.

UArizona: Health Behavior Health Promotion, Master of Public Health, MPH

This program differs from the proposed MA program since it focuses on the sociocultural factors that influence health and health behavior.

UArizona: Global Health, Master of Public Health, MPH

This program differs from the proposed MA program since it focuses on critical health and human development issues in diverse settings across the globe.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

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New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):		
No additional state resources will be required as existing resources will be reallocated to support this program.		
Plan to Request Program Fee/Differentiated Tuition?	YES	NO
Estimated Amount: \$900 per semester, \$100 per credit hour		
Program Fee Justification: The primary purpose of the program fee is to provide support for faculty in course design, development, and instruction. This is not a new request, the existing ABOR approved fee will also apply to this program		
Specialized Accreditation?	YES	NO
Accreditor: None		

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: MS in Forensic Science
Academic Department: New College of Interdisciplinary Arts and Sciences <i>School of Interdisciplinary Forensics</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: Fall 2025
Brief Program Description: <p>The MS program in Forensic Science at ASU is built on a solid understanding in biology, chemistry and criminalistics, which develops students' upper-level laboratory skills and research experience. Students complete holistic, rigorous coursework in the natural and mathematical sciences to adequately prepare for entering a competitive workforce. Examples of prospective employment positions include: crime scene lab analysts, crime scene investigators, DNA analysts and toxicology-based positions. Forensic science classes will incorporate innovative laboratories with cutting-edge, up-to-date technologies that are used in the forensic field. The interdisciplinary nature of the program is uniquely positioned to train students in forensic techniques, including crime scene collection, evidence analysis, and mock courtroom testimony. This degree is not limited to students primarily from forensic backgrounds and incorporates prospective students from any natural science degree (e.g., biology, chemistry, ecology), aligning with the ASU charter in whom it includes rather than excludes.</p> <p>Along with completing coursework and gaining the necessary scientific skills to succeed in this field, graduate students have the opportunity to gain fundamental research experience in a laboratory setting by undertaking an independent research project. Graduate students also</p>

may seek to apply for and participate in competitive forensic science internships sponsored by crime labs around the country.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will analyze DNA results from their accurate application of techniques in a laboratory setting.

- **Concepts:** DNA mixture analysis, extraction, quantification, amplification and isolation; data analysis; forensic biology; statistical analysis
- **Competencies:** Students will have the ability to conduct sample collection, isolate and amplify DNA, amplify short tandem repeat profiles, statistically analyze data, and interpret data and develop a case report.
- **Assessment Methods:** Students will complete a Laboratory Case Report and an oral presentation of laboratory findings assignment in the Advanced Forensic Biology course to assess students' competency in the outcome. Both assignments will be assessed using a faculty-developed rubric. In addition, as an indirect assessment, graduating students will complete the Graduate and Law Student Report Card survey, which assesses students' perceptions on how strong their graduate program was in providing training in "Research skills and methods" on a five-point scale. A faculty-designed rubric will be used to assess the Laboratory Case Report. The rubric will be designed to specifically assess students' competence in current trends in forensic biology and how students are able to incorporate this knowledge in their analysis to provide possible solutions to their case report questions. Students will be scored on a four-point scale. The outcome will be met if at least 80% of the students successfully meet the criteria (3 out of 4) on the faculty developed rubric. The oral presentation of laboratory findings assignment will also be measured with a faculty-developed rubric. The rubric will be designed to specifically assess students' competence in presentation and professionally communicating scientific facts in forensic biology. Students will be scored on a five-point scale. Competency in the outcome will be met if at least 85% of the students successfully meet the criteria (4 out of 5) on the faculty-developed rubric. For the Graduate and Law Student Report Card survey to assesses students' perceptions on how strong the graduate program was in providing training in "research skills and methods", it will use a five-point scale with options including: "very strong," "strong," "adequate," "weak," "very weak," in addition to "not applicable."
- **Measures:** Results for all outcomes of this program, both direct and indirect, will be compiled by the college for review and discussion about potential improvements the program can implement. All data will be aggregated and shared with faculty to be used for continuous improvement.

Learning Outcome 2: Students will analyze chemical and analytical evidence from their accurate application of techniques in a chemistry laboratory setting.

- **Concepts:** gas chromatography mass spectroscopy analysis, toxicology analysis, blood alcohol analysis, data analysis, spectra analysis, forensic chemistry, statistical analysis
- **Competencies:** Students will have the ability to conduct sample extraction, isolate drug spectra, interpret spectra profiles, statistically analyze data, and interpret data and develop a toxicological case report.
- **Assessment Methods:** The toxicological Laboratory Case Report assignment and the oral presentation of toxicological laboratory findings assignment in the Advanced Forensic Chemistry course will be used to assess the outcome and measured with a faculty-developed rubric. The student toxicological Laboratory Case Report assignment will be measured using a faculty-developed rubric designed to specifically assess students' competence in current trends in forensic chemistry and how students are able to incorporate this knowledge in their analysis to provide possible solutions to their case report questions. The outcome will be met if at least 80% of the students successfully meet the criteria (3 out of 4) on the rubric. Students will be scored on a four-point scale. The oral presentation of toxicological laboratory findings student assignment will also be measured with a faculty-developed rubric, designed to specifically assess students' competence in presentation and in professionally communicating scientific facts in forensic biology. Students will be scored on a five-point scale with competency in the outcome met if at least 85% of the students successfully meet the criteria (4 out of 5) on the rubric.
- **Measures:** Results of the assignments will be compiled by the college for review and discussion about potential program improvements. All data will be aggregated and shared with faculty to be used for continuous improvement.

Learning Outcome 3: Students will develop a research question in the field of forensic science by synthesizing current literature in the field.

- **Concepts:** understanding scholarly discourse, information literacy, data analysis, forensic biology, forensic chemistry, analytical techniques, criminalistics, data visualizations, communication skills, presentation skills
- **Competencies:** Students will have the ability to apply methods of identifying and framing research problems for scholarly study, find and assess peer-reviewed publications, accurately cite others' work, and accurately form and frame a research topic, all while considering a wide variety of research sources and assessing their quality in developing their research question in the field of forensic science.
- **Assessment Methods:** Students will conduct independent research in the forensic sciences synthesizing current literature in the field, resulting in a final research thesis measured using a faculty-developed rubric. In addition, students will be required to defend the final research thesis, also measured using a faculty-developed rubric. Faculty-designed rubrics will be used to assess the students' ability to conduct independent research in the forensic sciences, resulting in a final research thesis. The rubric will be designed to specifically assess students' competence in current trends in criminalistics, biology or chemistry, and how students are able to incorporate this

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knowledge in their research to provide possible solutions to their research questions. Students will be scored on a four-point scale. Competency in the outcome will be met if at least 85% of the students successfully meet the criteria (3 out of 4) on the rubric. The defense of the final research thesis will also be measured using a faculty-developed rubric designed to specifically assess students' competence to present accurate and professional data in current trends in criminalistics, biology or chemistry, and how students are able to incorporate this knowledge from their research to current landscape trends in forensic science. Students will be scored on a five-point scale. Competency in the outcome will be met if at least 90% of the students score a 4 out of 5 on the rubric.

- **Measures:** Results of the research, thesis and defense will be compiled by the college for review and discussion about potential program improvements. The data will be aggregated and shared with faculty to be used for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 50

Year 2: 60

Year 3: 70

Evidence of Market Demand:

Graduates of the Forensic Science MS degree program will be prepared to enter the workforce in crime labs and private research labs at local, state and federal levels. Graduates will also be prepared to pursue other educational programs (such as a doctoral degree) in the sciences, criminology or related fields.

The U.S. Bureau of Labor Statistics suggests that the forensic science field will grow faster than average for all occupations between 2016 and 2026, with some occupations within forensic science increasing by 17%. Lightcast reporting in 2022 shows that the demand for forensic science technician jobs is higher than average (4,180 demand/2,942 average) in the Southwestern U.S. with median wages in this discipline being above the national average.

In addition, the BS in Forensic Science in the New College of Interdisciplinary Arts and Sciences is, perhaps, the most rapidly growing, largest immersion degree in the college. ASU can serve significantly more students in the School of Interdisciplinary Forensics with the inclusion of an MS program in Forensic Science. The degree is also an option for careers outside the traditional crime scene lab, such as analysts, bench scientists, medical professionals, and practitioners. It, thus, can support enrollment/graduation well beyond the immediate employer demand.

Similar Programs Offered at Arizona Public Universities:

There are no similar programs offered at University of Arizona or Northern Arizona University.

Objection(s) Raised by Another Arizona Public University?

YES NO

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Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Internal resources already allocated to the school will be reallocated to launch this program and student enrollment will support growth.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: \$1755 per semester

Program Fee Justification: Program fee structure will include funds for graduate teaching assistants, use of lab materials and equipment alongside funds for professional development opportunities for the students to attend conferences, workshops and training. Funds will also be available for equipment maintenance and purchasing.

Specialized Accreditation? YES NO

Accreditor: The curriculum will be designed to complement FEPAC (Forensic Science Education Programs Accreditation Committee) guidelines. This will allow easy application of accreditation in the future if the need arises.

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: BA in Global Citizenship
Academic Department: The College of Liberal Arts and Sciences <i>School of International Letters and Cultures</i>
Geographic Site: Tempe, Downtown Phoenix, Polytechnic, West
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: Fall 2024
Brief Program Description: "Global Citizenship" is a term developed within the humanities in the aftermath of WWII to combat the limited sense of belonging that can prevent communities from understanding each other. Global citizenship entails serious comparative study of cultures, languages, customs and histories other than one's own, broadening the mind and fostering cosmopolitanism. The BA degree in Global Citizenship will be a transdisciplinary, cross-sectional degree that will consist of a small number of required courses on intercultural competence and social issues, a large number of electives, and an optional study abroad program. The degree will emphasize community-based learning experiences, service-learning opportunities and internships, as well as career preparation opportunities. There is high demand for degrees that focus on developing the competencies that students need for successful careers and responsible citizenship in an increasingly globalized world. As experts in global culture, literature and language, faculty of the School of International Letters and Cultures will ensure students develop multilingual and intercultural literacies; transcultural perspectives on diversity, inclusion and belonging; comparative understanding of language; and awareness of ethical issues and social issues that affect this ever-changing

world. The school offers 20 languages and a wide array of courses in world cultures, languages, linguistics and literatures.

Students will develop critical thinking and problem-solving skills, multicultural knowledge and an ethical stance grounded in a capacious sense of the world – skills grounded in humanistic study that are invaluable regardless of career path.

Other universities that offer undergraduate degrees in Global Citizenship include the University of Tennessee, Boston University, Webster University, Washington State University, Wilfrid Laurier University, and California Polytechnic State University.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will be able to compare distinct cultural and ethical perspectives, traditions and values, and will develop a cultural and ethical sensitivity to diverse societies and individuals in an interconnected world.

- **Concepts:** intercultural competence, sensitivity, language, diversity, cultures, values, communication, global citizenship, ethics
- **Competencies:** Students will demonstrate an awareness of ethical challenges and solutions. Students will demonstrate the ability to compare and contrast language, cultural facts and ethical perspectives across countries and regions.
- **Assessment Methods:** Students will be assessed in the core global citizenship course using a construct developed from multiple unit quizzes. These discrete item tests will allow the unit to measure students' understanding of the core concepts. As a culminating project, students design a global portfolio with mini-projects and artifacts related to all modules of the course. Final assessment will be done with a faculty-developed analytic rubric for the portfolio.
- **Measures:** The data will be compiled and shared with program faculty for possible curriculum redesign based on student performance. Data will be shared with program faculty in aggregate form and will be used for the continuous improvement of the curriculum.

Learning Outcome 2: Students will communicate effectively using cross-cultural and bilingual communication in real-world settings.

- **Concepts:** cross-cultural communication, pragmatics, translation and interpretation, cultural sensitivity, language variety, critical language awareness, language ideologies
- **Competencies:** Students will demonstrate effective engagement in interactions while understanding and respecting linguistic and cultural differences. Students will be able to clearly state and describe differences in cultural norms, values and traditions. Students will identify power dynamics, prejudice and biases in language use, and understand and appreciate language variation and different ways of speaking.
- **Assessment Methods:** Students will be assessed in two courses: Language in the U.S. and Community-service Learning. Students in the Language in the U.S. course will complete an assignment entitled "Compare and Contrast Chart." They will be

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asked to summarize the knowledge they have gained, comparing and contrasting two minority linguistic groups in the U.S. The assignment will be assessed with a faculty-developed scale. Community-service Learning is a course designed to use students' non-English language skills and intercultural competence skills to make a positive impact in their community and help solve real-world problems. The final reflective paper will be used for assessment, demonstrating students' ability to write effectively and critically on their experience using their bilingual skills during their service learning experience. This will be assessed with a faculty-developed rubric.

- **Measures:** Data will be shared with program faculty in aggregate form and will be used for the continuous improvement of the curriculum.

Learning Outcome 3: Students will write effectively according to standards of academic writing and referencing.

- **Concepts:** content development, disciplinary conventions, source and evidence, analytic expression, written and oral communication skills
- **Competencies:** Students will demonstrate and understand appropriate content and context. Students will be able to navigate their discipline content. Students will demonstrate their ability to communicate effectively, and they will be able to reference sources and data according to academic standards within their discipline.
- **Assessment Methods:** Students in the Globalization: From Colonialism to Climate Change course will be assessed on a final project demonstrating students' ability to write effectively, measured with a faculty-developed rubric. Students who completed the UOEEE alumni survey will be assessed using the survey item: "ASU's contribution to skills in - Writing clearly and effectively". On the survey item "writing clearly and effectively," it is expected that 50% of the population that participates in the survey will respond in the highest category, "Very Much."
- **Measures:** Data will be collected and shared with the coordinator and faculty. Data will be shared with faculty in aggregate form, highlighting areas of students' performance strengths and weaknesses, which will be used for the continuous improvement of the curriculum.

Projected Enrollment for the First Three Years:

Year 1: 30
Year 2: 60
Year 3: 100

Evidence of Market Demand:

The existence of programs at other universities shows student interest. More importantly, the skills offered by this degree have been targeted by international organizations as needed in the future; thus, the school anticipates growing demand.

According to the United Nations Academic Impact initiative, "by 2030, the international community has agreed to ensure that all learners acquire the knowledge and skills needed to

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promote sustainable development, including global citizenship. Universities have a responsibility to promote global citizenship by teaching their students that they are members of a large global community and can use their skills and education to contribute to that community." (see <https://www.un.org/en/academic-impact/global-citizenship>).

UNESCO's response to worldwide human rights violations, inequality and poverty is to promote global citizenship education so that citizens of all ages can understand and act to make more peaceful, tolerant, inclusive, secure and sustainable societies. In line with ASU's commitment to 'engage globally,' this degree will empower students to effect change in their local and global communities. The UN's Global Education First initiative states, "It is not enough for education to produce individuals who can read, write and count. Education must fully assume its central role in helping people to forge more just, peaceful, tolerant and inclusive societies." According to the UN, global citizenship education provides the understanding, skills and values students need to cooperate in resolving the interconnected challenges of the 21st century, including climate change, conflict, poverty, hunger, and issues of equity and sustainability. These same educational outcomes prepare students to be successful in the workplace of the modern world.

This degree will prepare students to find employment and excel in a variety of professions, including business, government, public service, nonprofits, consulting firms, social services, and educational institutions.

Similar Programs Offered at Arizona Public Universities:

This degree differs considerably from the global studies degree at ASU or at UA. The Global Studies degree at the UA focuses on exploring and solving global problems such as global governance of health and climate change, economic and social development, and religious identities, rights and conflicts.

NAU offers a BA in Comparative Cultural Studies, which focuses on comparative knowledge of global cultures. The ASU degree will focus more on intercultural competence and social justice.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing School of International Letters and Cultures resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

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Estimated Amount: None

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: N/A

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: BA in Sport, Society and the Human Experience
Academic Department: The College of Liberal Arts and Sciences <i>School of Historical, Philosophical and Religious Studies</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The BA in Sport, Society and the Human Experience will train students to apply the tools of the humanities to sporting spaces and industries. Students will interrogate the role that sport plays in various human societies across time and place, interpreting the value humans and communities place on sport for social transformation, community building, cross-cultural understanding, economic and urban development, fitness for defense, and peace-building. Students will become familiar with the ways that human discourse around, and constructions of, sport have changed over time, and they will apply theories explaining the nature of athletic competition. Classes will provide hands-on research and leadership experiences for students to investigate the role of race, ethnicity, gender, sexuality, ability and disability, socioeconomic class, and religion in sports, and the intersections of sport with media, technology, politics, sustainability, education and popular culture.</p> <p>A combination of content knowledge and practical skills will create confident leaders and global citizens who can address complex cultural, societal and ethical challenges in sports institutions as well as the broader societies that sporting spaces inevitably reflect and influence, and who can succeed in a range of careers, such as in commercial industry, public institutions and the nonprofit sector.</p>

While ASU offers degrees focusing on the business and journalism side of sports, this program will train students to understand the human and social dimensions of sports and play. By examining the history of sports across the world, meanings ascribed to sports and play, and ethical questions emerging from sports and play, this degree prepares students to critically analyze contemporary situations emerging from globalizations, Internet and communication technologies, and other trends impacting societies around the world.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will demonstrate ability to assess the philosophical approaches to explain the nature of sport.

- **Concepts:** philosophical theories; philosophical constructions of the nature of sport, such as externalist or internalist accounts; theories of sport, e.g., formalism, interpretivism and conventionalism; sport, game and play categorization; written communication
- **Competencies:** Students will be able to read and analyze primary texts and apply their questions or discoveries in their decision-making. Students will be able to create solutions and formulate their own conceptualizations of sport, games and play.
- **Assessment Methods:** Students are assessed on the review paper assignment in the Sport and the Human Experience course. The assignment focuses on the philosophical methods and conceptualizations of sport, and students are evaluated by a faculty-developed rubric with four corresponding dimensions: (1) Organization and Development — the philosophical methods and conceptualizations of sport section of the paper presents a thesis: main arguments are aligned to the thesis, and logical progression of ideas are uninterrupted; (2) Main Arguments — the main arguments are robust (i.e., well-supported by at least 3 philosophical principles); (3) Clarity of Concepts — the philosophical theories selected for inclusion are all primary and peer-reviewed and relevant to the main idea; (4) Writing Skill — theories and concepts are synthesized and integrated well into the main ideas using skilled explanatory writing and are free from grammatical, spelling, punctuation and formatting errors.

Students are also assessed in the Philosophy of Sport course through the Defining Sport written paper. They are also evaluated by a faculty-developed rubric with four corresponding dimensions: (1) Organization and Development — the defining sport paper sets the context: main arguments are aligned to the thesis, and logical progression of ideas are uninterrupted; (2) Main Arguments — the main arguments are robust (i.e., well-supported by at least 3 philosophical theories); (3) Quality of Research — the articles selected are all primary and peer-reviewed and relevant to the main idea; (4) Writing Skill — articles are synthesized and integrated well into the main ideas using skilled explanatory writing and are free from grammatical, spelling, punctuation and formatting errors.

- **Measures:** The director of the program will contact instructors prior to the start of each session or semester to ensure consistent learning outcomes and implementation of rubrics on the papers. Following each session or semester, directors will collect rubrics and aggregate scores across sections. Annually, the school director and the

program director will review assessment results and make suggestions for program improvements.

Learning Outcome 2: Students will demonstrate ability to interpret historical primary and secondary source texts to evaluate change over time in the relationship between sport and society in research and writing.

- **Concepts:** analysis of change and continuity over time; exploration of social, cultural, economic and political contexts to account for contextual factors influencing ideas and actions of the past; (exhaustive) identification of resources to uncover the people, ideas and events of the past; qualitative research, historiography, discourse analysis, oral history, archival research
- **Competencies:** Students will be able to identify, evaluate and interpret primary and secondary source materials, corroborate evidence and discern historical context, and evaluate comparatively different societal and cultural contexts. Students will be able to construct historical narratives and create historical analysis. Students will be able to make sense of debates about interpretations of the past.
- **Assessment Methods:** Students are assessed in the Sports in U.S. History course through a sports history written research paper, and they are evaluated by a faculty-developed rubric with four corresponding dimensions: (1) Organization and Development — the sports history research paper asserts a thesis relating to change over time in the relationship between sport and society: main arguments are aligned to the thesis, and logical progression of ideas are uninterrupted; (2) Main Arguments — the main arguments are robust (i.e., well-supported by at least 3 examples from the historical past); (3) Quality of Research — the source materials selected are primary and peer-reviewed secondary sources and relevant to the main idea; (4) Writing Skill — research materials are synthesized and integrated well into the main ideas using skilled explanatory writing and are free from grammatical, spelling, punctuation and formatting errors.

Students are also assessed from one item on the Exit Survey for the BA program: “Overall, the BA program in Sport, Society and the Human Experience provided me with the skills to write more clearly, analytically and professionally.” The exit survey is administered at the end of the program in the Sports Studies Capstone course.

- **Measures:** The director of the program will contact course instructors prior to the start of each session or semester to ensure consistent learning outcomes and implementation of rubrics on the sports history research paper. Following each session or semester, directors will collect rubrics and aggregate scores across sections. Annually, the college director and the program director will review assessment results and make suggestions for program improvements.

Learning Outcome 3: Students will apply knowledge of the relationship between religion and sport to interview analysis and research.

- **Concepts:** sport and religion; secularizing society; analysis of sporting commitments and fandom as religious or religious-like activity; interdisciplinary research methodologies, including qualitative and ethnographic approaches along with theories

like subculture identity theory, Durkheimian collective effervescence, and civil religion; fan devotion to sport

- **Competencies:** Students will be able to examine theoretical frameworks related to religion and apply these frameworks to case studies, comparatively and globally. Students will be able to plan, conduct and analyze an interview and formulate their own conceptualizations of the relationship between sport and religion. Students will be able to articulate and construct appropriate questions and analyze responses from various interlocutors.
- **Assessment Methods:** Students are assessed in the Religion and Sports course via the course research paper. They are evaluated by a faculty-developed rubric with four corresponding dimensions: (1) Organization and Development — the religion and sports research paper asserts a thesis: main arguments are aligned to the thesis, and logical progression of ideas are uninterrupted; (2) Main Arguments — the main arguments are robust (i.e., well-supported by at least 3 religious studies theories); (3) Quality of Research — the articles selected are all primary and peer-reviewed and relevant to the main idea; (4) Writing Skill — articles are synthesized and integrated well into the main ideas using skilled explanatory writing and are free from grammatical, spelling, punctuation and formatting errors.

Students are also assessed in the final program course – the Sports Studies capstone with the written component of the sport and religion interview assignment; it is evaluated by a faculty-developed rubric with four corresponding dimensions: (1) Organization and Development — the sport and religion interview written component sets the context of the interview project: main arguments are aligned to the thesis, and logical progression of ideas are uninterrupted; (2) Main Elements of Analysis — the main elements of analysis are robust (i.e., well-supported by at least three religious studies theories); (3) Quality of Research — the articles selected are all primary and peer-reviewed secondary sources and relevant to the main idea; (4) Writing Skill — analysis of the interview is synthesized and integrated well into the main elements of analysis using skilled explanatory writing and is free from grammatical, spelling, punctuation and formatting errors.

- **Measures:** The director of the program will contact course instructors prior to the start of each session or semester to ensure consistent learning outcomes and implementation of rubrics on the assessed course assignments. Following each session or semester, directors will collect rubrics and aggregate scores across sections. Annually, the school director and the program director will review assessment results and make suggestions for program improvements.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 40
Year 3: 80

Evidence of Market Demand:

The sports industry, both in the U.S. and globally, is booming. Everything from professional and collegiate sports to media, apparel retailers, fan communities, and local amateur leagues create a global marketplace of competition. With the legalization of sport gambling, the popularity of fantasy leagues, and a growing esports industry, sports and play constitute a cultural phenomenon around the globe. According to the "Sports Global Market Opportunities and Strategies to 2030: COVID-19 Impact and Recovery" report, the sports market is estimated to reach nearly \$600 billion in a couple of years.

Like all humanities programs, this program's graduates will go into a wide variety of careers. The focus on practical transdisciplinary skills, giving students experience in humanities and social science methodologies, will develop well-trained graduates ready to research, train, market and develop new ideas for public institutions, private companies and nonprofits alike. The Bureau of Labor Statistics predicts that employment in media and communication occupations will grow 6% between 2021 and 2031, and employment in entertainment and sports is projected to grow 13% in that same span. Many of the careers listed under the job family "Arts, Design, Entertainment, Sports, and Media" are listed as having a "bright outlook" on O*Net. The degree is aligned with the career success skills articulated by employers represented at the National Humanities Alliance. According to the data assembled within the NHA Toolkit, "Study the Humanities," employers are "actively seeking to hire graduates with skills such as oral communication, critical thinking, and ethical judgment and decision making." These are the skills that the Sport, Society and The Human Experience degree is built around. According to O*Net, social skills (such as persuasion) and thinking skills (like active learning and critical thinking) are in high demand across all employment sectors.

Companies across many sectors, including sports, value and hold as core to their missions and business strategies evaluations of environmental impact, social policies and corporate governance (ESG). Graduates from this degree program will be prepared for jobs for which companies are hiring with ESG in mind. According to the CFA Institute and McKinsey, this includes tools to evaluate environmental ethics and best practices; considerations of people and relationships, including diversity, equity and inclusion, community relations, human rights and labor standards; and governance standards for running a company.

Sports Global Market Opportunities and Strategies to 2030: COVID-19 Impact and Recovery Report

https://www.researchandmarkets.com/reports/5550013/sports-global-market-report-2022-by-type?utm_source=GNOM&utm_medium=PressRelease&utm_code=3gqkj8&utm_campaign=1566960+-+Global+Sports+Market+Opportunities+and+Strategies+Report+2021%3a+Sports+Market+Forecast+to+Reach+%24599.9+billion+by+2025+as+COVID-19+Lockdowns+Ease&utm_exec=cari18prd

Bureau of Labor Statistics

<https://www.bls.gov/ooh/entertainment-and-sports/home.htm>

Study the Humanities

https://www.studythehumanities.org/valued_skills

CFA Institute

<https://www.cfainstitute.org/en/research/esg-investing>

McKinsey

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<https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Strategy%20and%20Corporate%20Finance/Our%20Insights/Five%20ways%20that%20ESG%20creates%20value/Five-ways-that-ESG-creates-value.ashx>

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers an emphasis in Sports and Society in the BIS in Interdisciplinary Studies. The BA in Sport, Society and the Human Experience will provide a more specific and focused degree on intersections of sport and the human experience, with training in social sciences that can be applied through a variety of careers.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing School of Historical, Philosophical and Religious Studies resources will be reallocated to support this program

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: N/A

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: Bachelor of Individualized Studies
Academic Department: University College <i>Dean, University College</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The Bachelor of Individualized Studies helps students design an educational experience that advances the well-being of a community. The program connects students to the application of design-thinking principles to devise interdisciplinary solutions to address rapidly evolving societal and economic needs.</p> <p>Independent scholars, guided by advisors and intelligent tools, craft a learning plan consisting of curated courses and experiences, with a focus on applicability. The program will provide a core curriculum designed for exploration, reflection and problem-solving, with a capstone focused on applicability. Students will develop an individual learning plan to meet all university General Studies and graduation requirements and will select courses that meet their specific interests and desired career outcomes.</p> <p>A faculty review committee will meet to review individualized learning plans, and, upon approval, students work with their advisors to move their plans forward. The program will emphasize experiential learning as an integral part of the curriculum by creating work-integrated learning opportunities focused on applicability to the student's career goals. The program will require upper-division, work-integrated learning courses and experiences.</p>

Students will have personalized access to enhanced student success services. Students are assigned an advisor and a mentor, and students join a peer community to develop their sense of belonging and support one another.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will demonstrate design thinking to define and solve a real-world problem or challenge.

- **Concepts:** design thinking, prototype and iterative design, reflective thinking, problem identification and definition, research and data collection methods and analysis, needs assessment and gap analysis for possible solutions, implementation and feedback
- **Competencies:** Students will identify the clarity and relevance of a problem statement. Students will be able to develop SMART goals (specific, measurable, achievable, relevant, and time-bound), explain the reflective thinking process, conduct research and data collection, identify stakeholders, and demonstrate a comprehensive understanding of a problem or challenge.
- **Assessment Methods:** In the 200-level core course, students will craft SMART goals for a real-world problem or challenge, which will later be used in the capstone course. This will be measured using a faculty-developed rubric that will review the goals in alignment to the following criteria: evidence of the utilization of design thinking to understand and assess the complexity of the challenge or problem presented by student; and how the goals reflect an alignment to their academic growth and development and assessment of the problem or challenge the student desires to solve. Following each semester, administration will aggregate the scores to ensure the goals support the coursework of future students.

Students will demonstrate their utilization of design thinking to outline a real-world problem or challenge for the capstone project at the end of the program. The rubric-based assessment will focus on the clarity, understanding, relevance, reflection and depth of the following: problem statement, literature review, research methods and methodology, analysis and proposed solution.

- **Measures:** Data will be summarized and evaluated for any potential changes required in order to ensure continuous improvement to the program and student learning outcomes.

Learning Outcome 2: Students will be able to apply interdisciplinary knowledge to design and implement a project plan to solve a real-world problem or challenge.

- **Concepts:** project planning and management, setting objectives and milestones, resource allocation and time management, risk assessment and mitigation strategies, collaboration and communication, reflective thinking
- **Competencies:** Students will identify real-world problems or challenges aligned with their career or personal goal. They will be able to apply project planning and management principles and knowledge areas (e.g., scope, time, quality, resources,

risk, stakeholders) to attain their goals within a defined timeline. Students will be able to assess opportunities to share or develop innovative ideas, perspectives or solutions by examining the intersection of multiple disciplines.

- **Assessment Methods:** In the second-year core course, students will create their individualized written plan for their career and personal goals to solve real-world problems, which will be assessed by the faculty based on their rubric. Once approved, for thoroughness and quality, students will proceed to successive courses of their program. In the third-year core course, students will apply knowledge of design thinking, research methods, and project management to solving real-world problems. They will demonstrate reflective practices to identify and meet the goals established earlier in their overall plan. Students' detailed project plans, including objectives, milestones, resource allocation and risk mitigation strategies, will be measured. Throughout the course, they will submit progress reports that document their project implementation and highlight any modifications or adjustments made to the original plan. The faculty rubric-based assessment will evaluate the clarity and feasibility of the project plan, the ability to meet milestones, effective resource allocation, and the identification and management of project risks.
- **Measures:** Faculty who specialize in critical program curriculum will meet periodically to discuss assessments and deliverables to determine mastery of key concepts and theories. Data will be summarized and evaluated for any potential changes required in order to ensure continuous improvement to the program and student learning outcomes.

Learning Outcome 3: Students will be able to effectively communicate the process and findings of their individualized learning plan to employers, using a variety of techniques.

- **Concepts:** design, reflection, presentation skills and techniques, data visualization and interpretation, storytelling and engaging an audience, professional communication, addressing questions and feedback
- **Competencies:** Students will be able to present their story in a compelling fashion and demonstrate proficiency in design thinking, research methods, project management, and reflective thinking to solve real-world problems. Students will demonstrate written and oral communication skills.
- **Assessment Methods:** Students will prepare a written report in the core 300-level course summarizing their project to solve a real-world problem or challenge – in alignment with their career/personal goals and assessed based on faculty rubrics. They also will create a comprehensive oral presentation of the materials utilizing storytelling and visualization techniques to engage the audience, explain their work, and address any follow-up questions. This process and learning will set them up for success in explaining their individualized learning plan and the degree program to future employers. The assessment will focus on their ability to effectively present their project, use data visualization to enhance understanding, engage the audience through storytelling, demonstrate professional communication skills, and address any questions and feedback with clarity and confidence. Graduating students will complete a university survey; a college survey will be sent to students. Students' perception of their acquired communication skills (written and oral) will be measured per

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criteria/rubric set by the university.

- **Measures:** Faculty who specialize in core program curriculum will meet periodically to discuss assessments and deliverables to determine mastery of key concepts and theories. At the conclusion of each academic year, fall and spring data will be summarized and evaluated for any potential changes required to ensure continuous improvement to the program and student learning outcomes.

Projected Enrollment for the First Three Years:

Year 1: 50

Year 2: 145

Year 3: 368

Evidence of Market Demand:

As this is a personalized individual degree plan, career outcomes may be quite broad. Based on research from the National Student Clearinghouse, over 40 million adults have some college but no degree. This program would serve as an additional path for returning adult learners to complete their degrees.

Individualized study programs are offered by several nationally recognized institutions and interviews with their leadership have validated the demand and fit of the offering. For example, NYU Gallatin School of Individualized Study is a well-established program and currently has an enrollment of 1,700 students.

ASU's Explore program shows that some students would benefit from a more personalized major to accomplish their unique personal and professional goals.

Source:

<https://nscresearchcenter.org/some-college-no-credential/>

Similar Programs Offered at Arizona Public Universities:

There are no other programs offered by Arizona public universities that are designed with the level of personalization in the Bachelor of Individualized Studies. Some Interdisciplinary Studies programs are available in Arizona, but they require students to select some predefined concentrations:

The University of Arizona, College of Humanities offers an Interdisciplinary Studies degree program, where students must choose one concentration out of six available. Northern Arizona University also offers an Interdisciplinary Studies degree with predefined emphasis areas that students may choose from.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

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Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing University College resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: No

Request to Establish New Academic Program in Arizona

University: Arizona State University

Name of Proposed Academic Program:

BS in Artificial Intelligence in Business

Academic Department:

W. P. Carey School of Business

Department of Information Systems

Geographic Site:

Downtown Phoenix, Polytechnic, Tempe and West campus

Instructional Modality:

Both Campus and Digital Immersion

Total Credit Hours:

120

Proposed Inception Term:

Fall 2024

Brief Program Description:

The goal of the BS in Artificial Intelligence in Business is to equip students with the necessary technical artificial intelligence (AI) and business skills required to succeed in the constantly evolving landscape of technology and information systems. It will train a workforce that can leverage AI mindfully, towards meaningful value creation within an organization.

Successful AI strategies require not only technical skills but also business skills and the knowledge to manage and implement AI within an organization. Training students at the intersection of AI and business requires strong industry partnerships for immersive exposure and experiences within an organizational context. Faculty have deep industry experience at the executive level, guiding organizations through the application of technology for business value generation. The new degree capitalizes on this industry knowledge by pairing it with foundational training in AI technologies and tools and provides immersive, industry-led project experiences to its students. Students in this program learn how the technology works, how to deploy it successfully within a business, and are given opportunities to practice these skills in an organizational setting under the guidance of world-class business faculty and leaders. Graduates will be well-positioned to pursue a variety of careers, including data analyst, machine learning engineer, AI strategist, business consultant, and product manager.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will develop business solutions using critical thinking skills in a case study assignment.

- **Concepts:** understanding, identifying and building information and arguments based on business scenarios; assumptions and biases; reflection
- **Competencies:** Students will be able to assess an external situation, identify and explain key issues, interpret and communicate author opinion, and identify existing and build new conclusions based on evidence.
- **Assessment Methods:** All students in the program will be assessed during their Capstone course. In a written assignment, students will analyze and respond to a number of issues in a given business article or scenario, analyze issues presented and develop appropriate and strategy-related solutions. The assignment will be graded using a rubric developed to assess critical thinking skills, such as issues and assumptions, evidence and support, and conclusions and inference.

Additionally, students will respond to a graduation survey regarding how well ASU prepared them to think critically.

- **Measures:** The results of the direct and indirect measures of critical thinking for students, along with the other two learning outcomes, will be compiled and shared with the assessment representative, department and school leadership to review to identify gaps and opportunities for improvement.

Learning Outcome 2: Students will communicate effectively in writing when presenting solutions to problems and issues.

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- **Concepts:** readability; formal and informal rules for mechanics, formatting and organization; stylistic choices
- **Competencies:** Students will demonstrate the ability to write clearly and concisely; use appropriate grammar, spelling and punctuation; structure writing for easy comprehension, use of introductory strategies and development of conclusion statements.
- **Assessment Methods:** All students in the program will be assessed in the Capstone course. Students will respond to prompts regarding a business article or scenario. The written assignment will be graded using a rubric developed to assess written communication skills, such as grammar and syntax, organization and style, and mechanics.

Additionally, students will respond to a graduation survey regarding how well their ASU experience prepared them with written communication skills.

- **Measures:** The results of the direct and indirect measures will be compiled and shared with the assessment representative, department and school leadership to review to identify gaps and opportunities for improvement.

Learning Outcome 3: Students will demonstrate proficiency in artificial intelligence practices for business.

- **Concepts:** AI techniques, machine learning, natural language processing, business transformation scenarios
- **Competencies:** Students will demonstrate basic proficiency in key AI technologies, such as Machine Learning (ML) and Natural Language Processing (NLP). Using foundational ML techniques, they will set up basic predictive models and explore data to identify underlying patterns. In the area of NLP, students will use the basics of information retrieval to understand the principles behind sentiment analysis, and get a glimpse into the process of extracting relevant content from larger datasets.
- **Assessment Methods:** In the 400-level Capstone, students will be asked to select the most appropriate AI technique to be applied in a given business transformation scenario and justify their reasons. It will be graded according to a rubric designed to assess this ability – a sample of the resulting grades will be summarized and compared to the performance criteria. Students will also be surveyed at graduation using the Graduating Student Report Card to evaluate the quality of their university preparation in field-relevant subject area knowledge.
- **Measures:** At the end of the semester, students' results will be sent to the assessment representative for the program. The director of assessment will compile results for all of the program's outcomes and share them with the assessment representative, as well as school leadership and the undergraduate curriculum committee who will review and discuss to determine if there are opportunities to enhance the program and to help build the assessment plan for the new year.

Projected Enrollment for the First Three Years:

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Year 1: 100

Year 2: 250

Year 3: 350

Evidence of Market Demand:

The market demand for AI professionals is rapidly increasing. According to a recent report by Indeed, the demand for AI professionals has increased by 119% over the past three years. The report also found that AI jobs pay well, with an average salary of \$146,000 per year. The demand for AI professionals is expected to continue to grow as more companies invest in AI technologies to improve their operations and customer experiences.

A March 2023 report from the Initiative on Critical and Emerging Technology (iCET), a joint strategic partnership between the United States and India announced between the White House and Prime Minister Modi, estimated the current AI market at \$136 billion, expected to grow 37% annually (CAVR). There were almost 45,000 open AI jobs in February of 2023, and the AI market is estimated to reach \$15.7 trillion by 2030.

Similar Programs Offered at Arizona Public Universities:

There are currently no bachelor's programs at Arizona State University focused on artificial intelligence. There are master's degree programs in Robotics and Autonomous Systems, and machine learning from the Ira A. Fulton Schools of Engineering. The University of Arizona offers a bachelor's program in Applied Computing with an Applied Artificial Intelligence emphasis. These degrees focus on the technical elements of AI.

ASU's BS in Artificial Intelligence in Business focuses on training workforce talent to mindfully embed AI within organizations to create business value.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Internal resources already allocated to the W. P. Carey School of Business will be reallocated to launch this program and student enrollment will support growth.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

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Specialized Accreditation?	YES	NO
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Accreditor: W. P. Carey programs are accredited by the Association to Advance Collegiate Schools of Business (AACSB International).
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EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: BS in Financial Technology
Academic Department: W. P. Carey School of Business <i>Department of Finance</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The BS in Financial Technology is designed to provide students the technical skills and finance domain knowledge necessary to succeed in this rapidly growing industry. Students will develop an understanding of key concepts, technologies and trends shaping the industry, and they will learn to analyze and evaluate the opportunities and challenges presented by financial technology innovations. They will also develop critical thinking and problem-solving skills to help them effectively apply solutions to real-world challenges.</p> <p>This degree is a complement to existing finance and data analytics programs. The current finance major is focused on corporate finance and investments, and is well-suited for students who desire careers in corporations or in traditional financial services, such as investment and commercial banking. However, as technology permeates traditional banks and financial service firms, there is a need for graduates who combine specialized business knowledge and technical skill. Similarly, data analytics and other programming-intensive majors do not incorporate sufficient finance-domain knowledge to contribute, specifically, in finance-intensive technology functions. The new financial technology curriculum will build on the traditional business core with courses designed to prepare students to work in functional areas broadly relating to financial technology.</p>

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will create business solutions using critical thinking skills.

- **Concepts:** understanding, identifying and building information and arguments based on business scenarios; assumptions and biases; reflection
- **Competencies:** Students will demonstrate the ability to assess an external situation by explaining challenges and identifying key issues, by correctly identifying and interpreting author opinion, and by assessing existing evidence-based conclusions as well as, potentially, strengthening and extending those conclusions.
- **Assessment Methods:** Students will be assessed in the Capstone course where they will analyze a business article and develop a solution to a number of strategy-related problems and issues. The assignment will be graded using a rubric developed to assess critical thinking skills. Additionally, students will respond to a graduation survey regarding how well ASU prepared them to think critically.
- **Measures:** The results of the direct and indirect measures of critical thinking for Financial Technologies students, along with the other two learning outcomes, will be compiled and shared with the assessment representative, department, and school leadership within the business school to reflect on gaps that may exist in the degree and identify opportunities for changes.

Learning Outcome 2: Students will communicate effectively in writing when presenting solutions to problems and issues.

- **Concepts:** readability; formal and informal rules for mechanics, formatting and organization; stylistic choices
- **Competencies:** Students will demonstrate the ability to write clearly and concisely; use appropriate grammar, spelling, and punctuation; structure writing for easy comprehension; use introductory strategies; and develop conclusion statements.
- **Assessment Methods:** Students will communicate a solution to a number of strategy-related problems and issues within an article in the capstone course. The assignment will be graded using a rubric developed to assess written communication skills. Additionally, students will respond to a graduation survey regarding how well their ASU experience prepared them with written communication skills.
- **Measures:** The results of the direct and indirect measures will provide information for faculty, curriculum committee, and leadership within the business school to reflect on gaps that may exist in the degree and identify opportunities for changes.

Learning Outcome 3: Students will demonstrate proficiency in discipline-specific knowledge and be able to conduct a comprehensive analysis of a financial technology company.

- **Concepts:** basics of finance, analyzing financial transactions, payment systems, evaluation of financial technologies, regulation, cryptocurrencies and blockchain

- **Competencies:** Students will utilize foundational knowledge of financial technology to explore attitudes towards financial advice and trust in the financial services industry and the role of advisors and financial algorithms. Students will utilize foundational knowledge of payment methods and the history and regulation of payments in exploring payment technologies in developing markets and the tradeoff balance between regulation and innovation. Students will explore the field as an entrepreneurial solution for financial businesses, including crypto currency as an asset class (e.g., Bitcoin), the blockchain ecosystem, and the growth of centralized intermediaries for cash-alternative methods of transactions. Students will also take into consideration the rules and structure of cryptology and blockchain technology, property rights, digital signatures and privacy implications, and hashing (tamper proofing).
- **Assessment Methods:** During the second half of the semester in the capstone finance course, students will complete two assignments – an industry analysis and a case study analysis – to demonstrate their knowledge of financial technology. Students will choose a specific financial technology company or solution and conduct a comprehensive analysis of its products, services, business model and market position, as well as analyze the company's potential impact on the financial services industry. In the second assignment, a financial modeling project, students will build a financial model for a selected company. They will use financial and market data to develop projections for revenue, expenses and cash flows, and they will evaluate the company's potential for growth and profitability. The results of the project will be presented in a written report, graded by a faculty-designed rubric to assess knowledge of the field. Additionally, upon graduation, students will respond to a survey that includes a question regarding their job-related knowledge and skills preparation.
- **Measures:** These direct and indirect measures will be reviewed as part of the continuous improvement process for this degree program by department and school leadership to ensure students are gaining adequate and appropriate discipline-specific knowledge. The information will be used to review the program and determine if there are opportunities for enhancing the program.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 50
Year 3: 120

Evidence of Market Demand:

Financial technology, commonly referred to as fintech, is a rapidly growing field that has revolutionized financial services. The use of technology to improve financial services has led to more efficient, convenient and accessible financial products for consumers and businesses alike. According to a report by Accenture, investment in financial technology startups increased from \$1.8 billion in 2010 to \$39.57 billion in 2018. A recent article in Financial Times cited venture funding of \$210 billion in 2021. The same article cites a need for students who understand payment systems, back-end to front-end data analytics, as well as

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applications in invest-tech and online-only banking. <https://www.ft.com/content/567500a1-b8c1-4322-8a4e-d3f0ad314375>

The market need for financial technology professionals is driven by innovation in traditional financial institutions, increasing digitization of financial services, the need for financial inclusion, and an increasing focus on regulatory compliance.

As more and more financial transactions are conducted online and through mobile devices, traditional financial institutions are under pressure to keep up with changing consumer behavior and expectations. Financial technology startups are also emerging to challenge traditional players and offer innovative financial products and services. This has created a huge market need for professionals who have both technical and financial expertise and can help these organizations stay ahead of the curve. Many people around the world, especially in developing countries, do not have access to traditional financial services, such as banking and credit. Financial technology startups are using technology to reach these underserved populations and provide them with access to financial services. This has created new job opportunities for fintech professionals who can help these startups achieve their goals and bring financial services to people who previously lacked access.

Finally, the increasing regulatory focus on financial technology has also contributed to the market need for fintech professionals. Governments around the world are putting in place new regulations to ensure the security and stability of digital financial services. Financial technology professionals who are familiar with these regulations and can help organizations comply with them are in high demand.

Financial technology professionals work on a variety of projects, including developing new payment systems, improving cybersecurity in financial institutions, and using data analysis to make investment decisions. In addition, they often use cutting-edge technologies such as artificial intelligence and blockchain. With the increasing demand for professionals, students with this major are likely to have a wide range of career opportunities and a high earning potential. According to Glassdoor, the average salary for a fintech professional is \$92,000 per year.

Additional Salary information from Bureau of Labor Statistics:

Computer Programmer \$89,190

Financial Analysts \$95,570

Personal Financial Advisor \$94,170

Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other \$90,780 (<https://www.bls.gov/oes/2019/may/oes132098.htm>)

The major also fits well with Arizona as a hub for financial technology innovation. To allow entrepreneurs to launch cutting-edge products without burdensome costs or regulations, Arizona was the first state in the nation to launch a FinTech Sandbox in 2018. While in the sandbox, startups can test their innovations on a limited, temporary scale, allowing for business growth. Arizona joins countries including the United Kingdom, Singapore, United Arab Emirates and Australia in encouraging fintech investment by instituting sandboxes. (Source: <https://www.azcommerce.com/industries/business-financial-services/innovation/>).

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The state is home to several major financial services companies, including American Express, JP Morgan Chase, and Wells Fargo, which are actively investing in fintech and collaborating with startups to bring new financial products and services to market.

Similar Programs Offered at Arizona Public Universities:

Currently there are no similar programs at Northern Arizona University or University of Arizona.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Internal resources already allocated to the W. P. Carey School of Business will be reallocated to launch this program and student enrollment will support growth.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: This degree program would be accredited by AACSB, the Association to Advance Collegiate Schools of Business.

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program:
MS in Artificial Intelligence in Business
Academic Department:
W. P. Carey School of Business <i>Department of Information Systems</i>
Geographic Site:
Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality:
Both Campus and Digital Immersion
Total Credit Hours:
30
Proposed Inception Term:
Fall 2024
Brief Program Description:
<p>The master's degree in Artificial Intelligence (AI) in Business is designed to equip students with the in-demand technical and business acumen needed to excel in the rapidly changing realms of technology and business. Anchored in the triad of Mindful AI: business domain knowledge, technical understanding, and ethical awareness, this program aims to cultivate a highly skilled workforce proficient in thoughtfully applying AI across various industries and sectors.</p> <p>Students in this program will gain a comprehensive skill set that fuses technical acumen with business strategy. They will learn methods for mindful Artificial Intelligence, including Python programming and machine learning, natural language processing, and image recognition, tailored for business contexts. Additionally, students will become adept at crafting AI strategies, managing technology governance, and executing business transformation projects through a capstone experience focused on AI.</p> <p>As AI's role in business operations becomes increasingly significant, there is a growing demand for professionals with combined expertise in AI and business. The MS program prepares students for a diverse range of career paths—whether as applied implementers, AI project/product managers, or AI transformation consultants. The program's unique focus on</p>

mindful AI principles embraces the university's mission on ethical awareness and creating public value, while enhancing W. P. Carey's reputation for innovation and talent generation.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will demonstrate graduate-level proficiency in critically evaluating a real-world business scenario using AI model evaluation.

- **Concepts:** critical thought, AI model evaluation, AI model validation, business transformation, diverse business contexts
- **Competencies:** Students will have the ability to demonstrate an analytical mindset by questioning underlying assumptions, challenging model outcomes, and justifying modeling choices in business evaluations using AI modeling.
- **Assessment Methods:** In the course Transforming Business with AI, students will respond to a case by evaluating and validating an AI model in a business context. In this case assignment, students will be required to demonstrate their analytical capability at a master's program level. The assignment will be graded by the course instructor for assessment purposes using a faculty-designed rubric geared toward critical thinking. The results for the critical evaluation assignment will be shared with the program's assessment representative who will collect the assessment data for college and university review. Indirect results will come from the Graduating Student Report Card student survey, which will demonstrate whether students who completed this program feel they were prepared to think critically and analytically at a graduate level. Faculty-designed rubrics will be used to assess students on their ability to evaluate and validate an AI model in applied business transformation cases presented in the Transforming Business with AI. The rubric will be designed to specifically assess for critical and analytical evaluation. At least 80% of sampled students will earn 3 or higher on the 5-point rubric (1=far below expectation, 2=approaches expectation, 3=meets expectation, 4=exceeds expectation, 5=far exceeds expectation). In addition, students surveyed at the time of graduation will complete the Graduate and Law Student Report Card to evaluate the quality of their program and their readiness to think critically and analytically at a graduate level. The performance target is to have at least 80% of students indicate that the training provided by the program was "strong" or "very strong" in the survey.
- **Measures:** The results for all outcomes of this program, both direct and indirect, will be compiled by the college director of assessment and shared with the program assessment representative, school leadership and curriculum committees for review and discussion about potential improvements the program can implement. The results from these measures will give the college insight into how well students are being prepared to think critically. Program and college leadership will review the results annually to determine if improvements should be made.

Learning Outcome 2: Students will demonstrate graduate-level proficiency in communication on written responses to AI business solutions.

- **Concepts:** articulating responses to AI business scenarios, integrating clear communication, strategic problem-solving, and persuasive writing techniques
- **Competencies:** Students will have the ability to utilize effective communication skills in business, employ analytical abilities to interpret and communicate complex scenarios, and utilize clear and concise writing skills to convey arguments and solutions.
- **Assessment Methods:** In the course Transforming Business with AI, students will write a formal business proposal for an innovative, AI-enabled business solution. In this written assignment, students will be required to demonstrate their communication capability at a master's program level. The assignment will be graded by the course instructor for assessment purposes using a faculty-designed rubric designed to assess proficiency in communication on written responses to AI business solutions. The results for the written communication assignment will be shared with the program's assessment representative who will collect the assessment data for college and university review. Indirect results will come from the Graduating Student Report Card student survey, which will demonstrate whether students who completed this program feel they were prepared to communicate in writing at a graduate level.

Faculty-designed rubrics will be used to assess students on their ability to successfully communicate a response to a business problem by writing a business solutions proposal in their capstone course. The written responses will be assessed against a rubric designed to evaluate for student's graduate-level communication skills while responding to AI business solutions. At least 80% of sampled students will earn 3 or higher on the 5-point rubric (1=far below expectation, 2=approaches expectation, 3=meets expectation, 4=exceeds expectation, 5=far exceeds expectation). In addition, the GLSRC graduating survey will evaluate how students feel their graduate experience in their program prepared them with graduate-level communication skills in order to have the ability to respond to AI business solutions. The performance target is to have at least 80% of students indicate that the training provided by the program was "strong" or "very strong."

- **Measures:** The results for all outcomes of this program, both direct and indirect, will be compiled by the college director of assessment and shared in early fall with the program assessment representative, school leadership, and curriculum committees for review and discussion about potential improvements the program can implement. This information will be used by the program, department, and school leadership to consider enhancements for the program.

Learning Outcome 3: Students will validate appropriate AI techniques in response to a business transformation case, demonstrating graduate-level proficiency in Artificial Intelligence.

- **Concepts:** validation, AI techniques, business transformation, proficiency, and applying Artificial Intelligence in business contexts

- **Competencies:** Students will be able to demonstrate appropriate deployment of AI technologies, including Machine Learning (ML) and Natural Language Processing (NLP); use ML-supervised learning in order to build predictive models, utilize unsupervised learning to uncover hidden patterns in data, design advanced neural networks, use techniques for information retrieval to effectively fetch relevant documents, use sentiment analysis to gauge emotions and opinions in textual content, and employ content extraction to systematically pull specific details from vast amounts of unstructured data in order to validate appropriate AI techniques in responding to a business transformation case.
- **Assessment Methods:** In the course Transforming Business with AI, students will select the most appropriate AI technique to be applied in a given business transformation scenario and justify their reasons in a case analysis report. In this analysis report, students will be required to validate and justify their choice of AI technologies at a master's program level. The assignment will be graded by the course instructor for assessment purposes using a faculty-designed rubric. This rubric is designed to assess the appropriateness of the solution and the justification methodology in an AI business solution. The results for the report assignment will be shared with the program's assessment representative who will collect the assessment data for college and university review. Indirect results will come from the Graduating Student Report Card student survey, which will gauge whether students who completed this program feel they were adequately prepared in discipline-specific knowledge at a graduate level for the appropriate deployment of AI technologies.

Faculty-designed rubrics will be used to assess students on their ability to select and justify the most appropriate AI technique to be applied in a given business transformation scenario in the program's capstone course case analysis report. The written report will be assessed against a rubric designed to evaluate students' graduate-level, domain-specific skills while responding to AI business solutions. At least 80% of sampled students will earn 3 or higher on the 5-point rubric (1 = far below expectation, 2 = approaches expectation, 3 = meets expectation, 4 = exceeds expectation, 5 = far exceeds expectation). Students will evaluate, on the GLSRC graduation survey, how well prepared they were by their degree program for subject matter in their field. The target is for 80% or more to select "strong or very strong."

- **Measures:** The results for all outcomes of this program, both direct and indirect, will be compiled by the college director of assessment and shared in early fall with the program assessment representative, school leadership, and curriculum committees for review and discussion about potential improvements the program can implement. Compiled data will be reviewed annually to ensure students are meeting program expectations.

Projected Enrollment for the First Three Years:

Year 1: 20
Year 2: 30
Year 3: 50

Evidence of Market Demand:

The increasing importance of Artificial Intelligence (AI) in the business sector is underscored by multiple reports and statistics. A March 2023 report from the Initiative on Critical and Emerging Technology (iCET), a U.S.-India strategic partnership, quantifies the AI market at \$136 Billion. This market is projected to grow at an annual rate of 37%, with an estimated worth of \$15.7 trillion by 2030. Concurrently, the job market reflects this growth; in February 2023 alone, there were nearly 45,000 open AI jobs.¹

The World Economic Forum's Future of Jobs Report 2023 further substantiates the growing demand for AI professionals. According to the report, AI and Machine Learning Specialists are among the fastest-growing job categories. Significantly, 75% of the surveyed companies plan to adopt AI technologies within the next five years, and half of these companies anticipate that AI will be a key driver of job growth. Moreover, the report highlights the rapid development of core skills such as analytical thinking, creative thinking, and technology literacy, which are essential for any AI-related curriculum.²

Adding to the growing need for professionals in the field of Artificial Intelligence (AI) is the substantial earning potential. According to Glassdoor, the estimated total pay for an entry-level AI Specialist stands at \$101,310 per year³. This figure alone signifies the high value placed on early-career professionals in AI. Additionally, Payscale reports that the average salary for an Artificial Intelligence Specialist is \$127,380, indicating that compensation in this field is both competitive and lucrative⁴.

Incorporating these financial incentives, it becomes even more evident that there is a strategic opportunity to offer a master's degree in AI for Business. This program would not only address the growing market demand for AI experts but would also provide substantial economic benefits for graduates. Moreover, it would further solidify ASU's reputation as an institution that prepares students for highly rewarding careers while navigating the complexities of AI in the business sector.

¹ The Future of Jobs Report 2023, World Economic Forum ([link](#))

² iCET - Forces Shaping Future of Technology ARTIFICIAL INTELLIGENCE ([link](#))

³ Average Artificial Intelligence (AI) Specialist Salary, Payscale ([link](#))

⁴ Entry Level AI Engineer Salaries, Glassdoor ([link](#))

The Bureau of Labor Statistics does not formally list AI Specialist roles using such titles, and perhaps the program is ahead of the bureau in this space as they tend to be very conservative and focus primarily on jobs that will be lost rather than the new jobs that will be created (Politico.com, June 12, 2023). Many of the studies (for example, Stanford's Artificial Intelligence Index Report and Hiring Lab: Demand for AI Talent on the Rise) use AI-related jobs as job titles in which a substantial share of job posting descriptions include the terms 'artificial intelligence' and 'machine learning'. Related terms such as AI Specialist or AI in the title of job titles is not the norm yet, "we measure [the] volume of job searches which contain any variant of those aforementioned AI-related job titles." Examples of job titles that do not contain AI in the name include, Chatbot Developer, Machine Learning Engineer, Business Intelligence Analyst, and Data Scientist.

EXECUTIVE SUMMARY**Similar Programs Offered at Arizona Public Universities:**

This degree offers W. P. Carey the potential to be the first business school to offer a degree in AI in the USA; such skills will be in high demand as organizations of all types contemplate their AI strategies. There are no artificial intelligence degrees in business at UArizona or NAU.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No additional state resources will be required as existing resources will be reallocated to support this program.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: \$10,000 per semester

Program Fee Justification: The program fee of \$20,000 is standard for our specialized master's programs operational costs, including faculty and staff.

Specialized Accreditation? YES NO

Accreditor: This program will be accredited by AACSB, the Association to Advance Collegiate Schools of Business.

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: DBA in Supply Chain Management
Academic Department: W. P. Carey School of Business <i>Department of Supply Chain Management</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 84
Proposed Inception Term: Fall 2024
Brief Program Description: The proposed DBA in Supply Chain Management in the W. P. Carey School of Business will offer advanced training in applied research methods to advance theories and practices in efficient and sustainable supply chain management. Students will develop scientific thinking and inference skills in conceptualizing and synthesizing theories and data, and acquiring advanced knowledge in modern supply chain management. The program's goal is to provide experienced professionals with applied yet rigorous academic theories and tools to contribute to their organizations' success with practice-based research in supply chain management. The program thus prepares candidates to advance into roles as senior consultants, corporate executives, administrators, and/or university teaching faculty. The program supports ASU's vision of being "The World's Supply Chain University" with three pillars: (1) Bring supply chain thought leadership to the world's most pressing problems, (2) Prepare, influence and inspire stakeholders to improve the communities served by ASU, and

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- (3) Produce world-class research that improves discipline and engages with industry and civil society.

The DBA program in Supply Chain Management is strongly inspired by ASU's mission to be an inclusive institution, as it offers opportunities for senior-level professionals to gain a doctoral degree while continuing to work. Therefore, the program helps to prepare and influence students from broader communities, which would otherwise not be possible with a traditional PhD program. Such a broader student body in diverse communities is more likely to influence and inspire stakeholders to improve communities.

In addition, the program benefits existing PhD programs through the cross-pollination of ideas, theories, and practices by connecting and engaging with academic researchers to propel world-class research and practice that improves the community by addressing the world's most pressing problems. The program will also interact positively with the master's programs and executive programs by providing additional opportunities for students, such as cross-learning and networking.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will think critically when assessing large-scale global supply chain problems based on independent applied research conducted for the culminating dissertation.

- **Concepts:** scientific thinking and inference, analytical thinking, creative and complex problem solving, conceptualizing and synthesizing data and information, paraphrasing technical language and scholarly writing, logical progression of arguments, and data-based decision making
- **Competencies:** Students will have the ability to utilize philosophies of science as well as major theories and findings from existing research in global supply chain management; identify and analyze limitations of the extant literature on critical components of supply chain management including procurement, logistics, and operations; and propose novel solutions to a supply chain management problem using advanced knowledge in modern supply chain management in their culminating experience scholarly document.
- **Assessment Methods:** Students will be required to conduct applied research, synthesize data, and analyze findings to identify and provide a recommended solution to a large-scale global supply chain problem in their scholarly dissertation. Students will be scored using a faculty-designed rubric to evaluate for competency in critical thinking and analysis specific to the outcome. The committee chair will report the final scoring information to the DBA program coordinator who will collect the assessment data for college and university review. In addition, survey results regarding critical thinking skills will also be taken from ASU's Graduate and Law Student Report card survey that is required of all students who complete the program and is administered when the student is ready for graduation.

Each student's faculty committee and instructors will score the strength of the student's critical thinking and analysis skills using the faculty-designed rubric. The faculty rubric will confirm students' ability to critically analyze and synthesize research

literature in key supply chain management areas. At least 80% of the sampled students will score a 2 or better on a faculty-created rubric with scale of 1 to 4 (1 = acceptable, 2 = acceptable with minor revisions, 3 = acceptable with major revision, 4 = unacceptable). Rubrics for the critical thinking skills will include measures such as the depth of analyses of the extant literature in supply chain management; the criticality of the applied research gap identified; and the creativity of the solution approach proposed. The culminating experience data and survey results from the Graduate and Law Student Report Card will be used together to measure students' critical thinking (direct measure) and how well they feel prepared to think critically (indirect measure). The performance target is to have at least 80% of students indicate that the training provided by the program was "strong" or "very strong" in the survey.

- **Measures:** The college director of assessment will compile the student results and the indirect survey data annually, and will share the information with the program manager and school leadership. The final report will be shared with the college program assessment representative, school leadership, and curriculum committees, who will review and discuss the information in program area meetings for continuous improvement.

Learning Outcome 2: Students will communicate research findings through collaborative and adaptive methods and the dissemination of applied research to both academicians and practitioners in the supply chain industry.

- **Concepts:** oral, written, and visual communication skills; voice and audience; logical progression of arguments; dissertation proposition; and defense and argumentation
- **Competencies:** Students will have the ability to effectively interpret, synthesize, and summarize research findings through writing and presentations; present research findings to the scientific community of supply chain management; demonstrate academic writing evidenced by dissertation measured through clarity, conciseness, accuracy, relevance, cogency, rigor, and persuasiveness; and communicate doctoral level research findings to the broader business community in both writing and presentations.
- **Assessment Methods:** The outcome will be assessed through students' completion of their research and dissertation and the ability to convey their doctoral level findings to both academicians and practitioners in the supply chain industry, and through a student graduation survey that measures their doctoral level communication preparedness. The dissertation committee will assess students' communication skills as demonstrated in the presentation using a faculty-designed rubric designed to evaluate doctoral level communication skills and how students successfully communicate their research findings through collaborative and adaptive methods and the dissemination of applied research. Assessment results will be submitted to the Supply Chain Management (SCM) Program Coordinator for collection. Indirectly students will evaluate how well the program prepared them with "communication skills" through the University's Graduate and Law Student Report Card survey. Faculty designed rubrics will be used to assess the students' cogent presentations in defense of their dissertation to complete the requirement for the degree. At least 80% of the sampled students will receive a score of 2 or better on the rubric: (1) unacceptable, (2)

meet expectations, (3) exceed expectations, and (4) exceptional on the first attempt to defend the dissertation. The rubrics will evaluate communication skills against measures such as the clarity of the writing, the coherence of the presentation, the effectiveness of arguments communicated, and the professionalism of the dissertation. Students surveyed at graduation will evaluate how well they have been prepared with "communication skills" on the Graduate and Law Student Report Card. The performance target is to have at least 80% of students indicate that the training provided by the program was "strong" or "very strong."

- **Measures:** Assessment data for communication skills- direct and indirect - will be compiled, along with the data from the other three Learning Outcomes over a 5-year period, by the school's assessment director and shared with the assessment/program coordinator, as well as departmental and school leadership to be discussed in program area meetings and used for continuous improvement.

Learning Outcome 3: Students will synthesize extensions to previous empirical and theoretical work in at least one substantive area of global supply chain management in their research and final dissertation.

- **Concepts:** theories of supply chain planning, sourcing, manufacturing, delivery, and returns; global supply chain management issues; problem solving and decision-making; and academic research skills
- **Competencies:** Students will have the ability to synthesize and apply accepted doctoral level theories related to global supply chain management to develop substantive extensions to the existing knowledge of global supply chain management. Students will be able to justify the validity of their research based on doctoral level understanding of major theories in global supply chain management; articulate how the chosen research theory framework most appropriately solves the supply chain problem investigated in their dissertation; and apply the theory framework correctly to support research conclusions and results in their dissertation.
- **Assessment Methods:** Students will complete a research assignment in a required SCM Supply Management course that is designed to assess their knowledge of the technological and economic forces associated with globalization and supply chain strategy based on a faculty designed rubric, which will include measurement of the doctoral level of ability to synthesize knowledge in major theories in global supply chain management in order to develop a substantive knowledge extension. The Dissertation Committee will assess the students' research and analysis work as it applies to the final dissertation using a faculty-designed assignment rubric that will measure the students' ability to synthesize discipline specific knowledge, including major theories in global supply chain management. The faculty committee will report the rubric results to the Program Coordinator who will collect the data for all current DBA students who have taken the required course and will enter the data for collection. Additionally, upon graduation, students will complete the Graduate and Law School Report Card survey indicating how strong their experience was in preparing them to engage the global community in their industry.

The research assignment in the required SCM Supply Management course is designed to assess students' knowledge of the technological and economic forces

associated with globalization and supply chain strategy and will be assessed using a faculty designed rubric to measure the students' ability to synthesize knowledge in major theories in global supply chain management in order to develop a substantive knowledge extension. At least 80% of the sampled students will receive a score of 2 or better on a faculty-created rubric with scale of 1 to 3 (1 = unsatisfactory, 2 = satisfactory, 3 = meritorious). Indirectly, students surveyed at graduation will evaluate how well the program prepared them to engage the global community in their industry on the ASU Graduate and Law Student Report Card. The target is for 80% or more to select "strong or very strong."

- **Measures:** The school's assessment director will compile all of the data for the outcomes - both direct and indirect data - and will share the information with the assessment representative and school leadership. The assessment data will be discussed in program area meetings and used for continuous improvement and to ensure students are meeting program expectations.

Projected Enrollment for the First Three Years:

Year 1: 1

Year 2: 2

Year 3: 3

Evidence of Market Demand:

The program is designed to attract a small number of students from both in-state and out-of-state applicants. Based on benchmarking with peer schools (e.g., Penn State University, University of Dallas, Temple University, University of Florida, Washington U. at St. Louis, Georgia State University) as well as EMSI report, we expect to attract one or two students each year. This is based on the estimation of total market demand to be 50 annually in the US, multiplied by (estimated) 5% market share we can initially capture, which leads to $50 \times 5\% \sim 2$ students.

Furthermore, based on Bureau of Labor Statistics data, the average number of job postings related to Supply Chain Management (11-3071 Transportation, Storage, and Distribution Managers, 13-1081 Logisticians, 11-3051 Industrial Production Managers, 11-3061 Purchasing Managers) is 657,527 in 2020, and is projected to grow by more than 30% in the next 10 years (see the Bureau of Labor Statistics report below). This suggests that the market demand for an SCM DBA is robust. However, we use the previous, more conservative estimation based on EMSI reporting since our program requires a 3-year commitment with high-level training, which is likely to limit the number of potential applicants to our program. In addition, our program's target career outcomes include high-level executives, administrators and consultants, which also limit the target candidates we can admit. As such, we believe a conservative estimation at the beginning helps to put our program on a solid footing.

There are three key advantages the proposed program will hold against competitors in the long run. First, ASU's reputation in supply chain management is ranked among the best in the nation. Most existing DBA programs from peer schools are general degree programs, whereas the proposed program is sharply focused and thus more attractive to supply chain professionals. While this limits the potential number of candidates, it ensures that we can attract these limited applicants. Second, Phoenix is attracting significant investments from both private and government entities, spurring both demand and supply for our program in

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the future. Third, the program structure is flexible which makes it feasible for both in-state and out-of-state students. In the future, the program can be proposed to be linked to the Center for Applied Research and Innovation in Supply Chain – Africa to train supply chain talents for African countries. Therefore, while we anticipate a small number of enrollments initially, the program could grow to a substantial size in the future.

Similar Programs Offered at Arizona Public Universities:

The only similar program offered by Arizona public universities is the DBA in Global Financial Management program, which has similar concepts but focuses on the China market. The DBA in Global Financial Management program is very successful.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

Internal resources already allocated to the school will be reallocated to launch this program, and student enrollment will support growth.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: \$10,000 per semester.

Program Fee Justification: The fee will support independent studies supervision, dissertation chair compensation, dissertation committee compensation, and department support

Specialized Accreditation? YES NO

Accreditor: This program will be accredited by AACSB, the Association to Advance Collegiate Schools of Business.

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: DCJ in Criminal Justice
Academic Department: Watts College of Public Service and Community Solutions <i>School of Criminology and Criminal Justice</i>
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 60
Proposed Inception Term: Fall 2024
Brief Program Description: Justice agencies increasingly place greater emphasis on collaboration with academic institutions and consultants to develop evidence-based policies to improve the operations of police, courts, and correctional organizations. Moreover, as academic programs in criminal justice grow, there is a need for qualified instructional personnel who are focused on teaching students enrolled in justice-related degree programs. The proposed Doctor of Criminal Justice (DCJ) is a professional doctoral degree program designed for mid- to senior-level practitioners in the criminal justice profession (e.g., wardens and deputy wardens, chiefs and deputy chiefs of police, senior-level detectives, senior-level probation or parole officers, special agents at the state and federal levels, and senior crime analysts), who aspire to be experts that combine practical and academic knowledge in their field in ways that equip them to solve complex criminal justice issues. The degree would increase such persons' career advancement potential into the most senior levels in justice organizations, as well as prepare students to assume tenure-track faculty positions in community/junior colleges or career-track/non-tenure track faculty positions at colleges and universities. The DCJ will provide students the skills to apply contemporary knowledge, utilizing theories and methods in criminology and criminal justice to create and evaluate programs to solve

agency and community problems. DCJ courses will impart a comprehensive knowledge base about policies, practices, professional values, and ethics with special attention paid to how the justice system and its actors can improve public safety outcomes while respecting people and communities from culturally and personally diverse backgrounds. Graduates of the DCJ would be skilled criminology and criminal justice researchers who are prepared to meet the needs of 21st century criminal justice agencies. Consistent with ASU's charter, the DCJ provides a pathway to include new students in doctoral-level education and creates graduates who will use research to advance the safety and well-being of the communities they serve.

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will synthesize advanced knowledge of criminological theory and existing research on criminal justice policy and practice to make original contributions to knowledge that advance 21st century criminal justice practice in the field.

- **Concepts:** Theoretical perspectives on the causes and nature of crime; theories of policy responses to crime; the operation of the criminal justice system including policing, courts, and corrections; the state of 21st century criminal justice practice; research synthesis; and translational criminology.
- **Competencies:** Students will have the ability to evaluate the state of criminological theory; compare and contrast different theoretical perspectives on the causes and nature of crime; assess the effectiveness of criminal justice policies, practices, and interventions; propose innovative approaches to crime and justice problems currently faced by agencies; interpret research synthesis strategies such as systematic reviews or meta-analyses to summarize fields of research; and identify translational strategies to connect research findings to practice.
- **Assessment Methods:** Students will be assessed on the requisites required for competency in knowledge in criminological theory, criminal justice policy and practice, and research synthesis based on the final paper in CRJ 601 Seminar on Criminological Theory, synthesizing relevant research on criminological theory and applying it to a current criminal justice problem. This final paper will be evaluated using a faculty-developed rubric designed to show competency in the outcome. In addition, students will also complete a final paper in CRJ 602 Seminar on Criminal Justice Policies and Practices critiquing a current criminal justice policy or practice and proposing an alternative, evidence-based approach, which will be assessed using a faculty-developed rubric.

The final course paper in CRJ 601 Seminar on Criminological Theory will be assessed with a faculty-developed rubric (scored 1 to 5). 80% of students will meet or exceed expectations (4 out of 5), as determined by the faculty-developed rubric on the final paper. In addition, the final course paper in CRJ 602 Seminar on Criminal Justice Policies and Practices will also be assessed using a faculty-developed rubric (scored 1 to 5). 80% of students will meet or exceed expectations (4 out of 5), as determined by the faculty-developed rubric on the final paper. The program director and faculty will review the data pulled from the final course paper rubrics for any dips in the scores.

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- **Measures:** Resulting data will be compiled annually by the school curriculum coordinator and shared with the Director of the Doctor of Criminal Justice program. The program will be continuously refined based on the results.
- **Learning Outcome 2:** Students will effectively apply knowledge in data analytics and research methodology to create and evaluate programs to solve agency and community problems.
- **Concepts:** Research design and methodology; quantitative and qualitative designs and data; data analysis; interpretation of statistical data using state-of-the-art technology and methods; and data management.
- **Competencies:** Students will have the ability to formulate methodologies to address relevant research questions in policy and practice; select appropriate data collection approaches for different types of research questions; determine appropriate statistical and analytical techniques for different types of research methodologies; and evaluate solutions to community problems.
- **Assessment Methods:** Students will be assessed on the requisites required for competency in knowledge in statistics research methods based on a final written exam in a statistical analysis course regarding key concepts in bivariate and multivariate statistics. The exam will be assessed with a faculty-developed rubric designed to show competency in the outcome. In addition, students will complete a final written exam in Advanced Research Design on key concepts in quantitative and qualitative research. The exam will be assessed using a faculty-developed rubric that will also show competency in the outcome.

The final written examinations in the statistical analysis course and the research methodology course, Advanced Research Design, will be scored and assessed with a faculty-developed rubric. Exam rubric scoring will show competency in students' knowledge in data analytics and research methodology as well as the ability to generate improved outcomes for crime and public safety problems if at least 80% of students answer 80% of all of the questions correctly on both final examinations.

- **Measures:** Data will be compiled annually by the school curriculum coordinator and shared with the Director of the Doctor of Criminal Justice program. Resulting data will be reviewed annually for continuous improvement,

Learning Outcome 3: Students will design and carry out an applied research project on an innovative criminal justice topic, producing a written document and oral presentation.

- **Concepts:** Development of innovative research questions; conceptualization and operationalization of variables; analysis and interpretation of qualitative data and quantitative data; survey construction and testing; effective communication of findings in writing; effective communication of findings orally; presentation of research findings; and presentation of data analysis.
- **Competencies:** Students will be able to produce a written culminating applied research project that applies concepts from the program to the student's chosen topic area in criminal justice and will demonstrate proficiency in the knowledge as well as present project findings during an oral presentation.

- **Assessment Methods:** Students will be assessed on the attainment of skills in both the writing and presentation of advanced criminal justice topics based on the applied project oral presentation in the Applied Project course. Students will be evaluated by a faculty committee using a faculty-developed rubric. In addition, students will complete a final applied project written report, which will also be used to demonstrate a student's ability to research their chosen area in criminal justice and utilize course and program materials to effectively address a relevant criminal justice topic. This report will also be assessed by a faculty committee using a faculty-developed rubric. Graduating students' will also be surveyed on their level of satisfaction with the "academic experience" and "quality of instruction" in the Doctor of Criminal Justice program to assess the program indirectly.

The final applied project oral presentation in CRJ 793 will be assessed by a faculty committee using a faculty-developed rubric (scored 1 to 5), and the final applied project written report will also be evaluated by a faculty committee using a faculty-developed rubric (scored 1 to 5). 80% of students will meet or exceed expectations (4 out of 5) on the final oral presentation and applied project report in CRJ 793 as assessed by a faculty committee, showing competency in the student's ability to design and produce applied research on a criminal justice focus. Satisfaction of the "academic experience" and "quality of instruction," based on the graduating students' survey, will show competency in the outcome if 80% of students report that they were "satisfied" or "very satisfied" with the "academic experience" and "quality of instruction" of the program.

- **Measures:** Data from the presentation and applied project rubric scores, in addition to the survey data, will be compiled and analyzed annually. Results will be shared with faculty and used for refinement. Resulting data will be compiled annually by the school curriculum coordinator and shared with the Director of the Doctor of Criminal Justice program. The data will be reviewed annually for continuous improvement.

Projected Enrollment for the First Three Years:

Year 1: 8-12
Year 2: 15-20
Year 3: 18-22

Evidence of Market Demand:

The School of Criminology and Criminal Justice currently offers one of the top-ranked PhD programs in criminology (ranked #2 by *U.S. News & World Report*). We receive numerous inquiries annually from working professionals – many of whom are employed in senior levels of justice organizations – who desire to earn a professional doctorate, but cannot quit their jobs to be full-time students in a PhD program. These individuals would like to further their professional credentials, and many would like to teach after they retire. The DCJ will offer the flexibility to better serve these prospective students. In contrast to the PhD program in criminology and criminal justice, which is heavily focused on training students to be future researchers and scholars, the DCJ will be designed to create forward-thinking leaders in justice practice and elite collegiate-level instructors dedicated to teaching excellence.

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Of the top 30 PhD programs in our field (based on the most recent *U.S. News & World Report* rankings of criminology doctoral programs; see <https://www.usnews.com/best-graduate-schools/top-humanities-schools/criminology-rankings>), none offer a professional doctorate developed to address the needs of individuals in criminal justice leadership roles. ASU would have the ability to offer this professional doctoral degree in criminal justice in a flexible format, making this program more accessible to prospective students. We envision vibrant digital classrooms that bring well-qualified learners together for instruction by our nationally and internationally renowned faculty.

Currently, 100% of graduates from our PhD program have secured employment in academia, governmental agencies, research institutes/think tanks, and the private sector. This trend is likely to continue, especially with regard to faculty positions in higher education. Unlike the job market in many fields where the academic job market is dismal, faculty positions in criminology and criminal justice are plentiful. According to the Chronicle of Higher Education, undergraduate demand for degrees in criminology and criminal justice "is growing." Still, the number of persons with doctoral degrees in the field "remains limited".

(<https://www.chronicle.com/article/believe-it-or-not-in-some-fields-colleges-cant-find-anybody-to-hire/>)

According to the Bureau of Labor Statistics, employment of post-secondary criminology and criminal justice teachers is expected to grow 8-10% through 2031, with more than a quarter of those jobs requiring a doctorate (<https://www.onetonline.org/link/summary/25-1111.00>).

Graduates of the DCJ would be highly marketable to fill career-track faculty positions. Employment opportunities would also exist in supervisory and executive management positions in criminal justice agencies (federal, tribal, state and local), policymaking, and the private sector. While a doctorate is not generally required for executive positions in criminal justice, it is also becoming increasingly common for agency leaders to have advanced education. The latest survey of police chiefs from the Police Executive Research Forum, for example, shows that 2.3% had a doctoral degree, and 72.3% held a master's degree (see <https://www.policeforum.org/assets/ChiefsCompensation.pdf>). This suggests there are already some police leaders seeking doctoral degrees from other institutions and that there is a large market of police leaders with a master's degree who could be interested in advancing their education and post-law enforcement career prospects with a DCJ from a top-ranked program like ASU.

Similar Programs Offered at Arizona Public Universities:

There are no other professional doctoral programs in Criminal Justice and Criminology at Arizona public universities. As previously mentioned, the School of Criminology and Criminal Justice at ASU currently offers a PhD program in Criminology and Criminal Justice, but that is a research degree. We do not expect the programs to compete with each other.

There are no doctoral programs (research or professional) in Criminal Justice and Criminology at NAU or UArizona. The University of Arizona Global Campus does offer a Doctor of Psychology (PsyD) with a Criminology and Justice Studies specialization (<https://www.uagc.edu/online-degrees/specializations/criminology-justice-studies>). We do not believe there would be significant overlap between the DCJ and the Doctor of Psychology with a Criminology and Justice Studies Specialization at UArizona Global Campus.

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Objection(s) Raised by Another Arizona Public University?		YES	NO
Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?			
If Yes, Response to Objections: Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.			
New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.): No additional state resources will be required as existing resources will be reallocated to support this program.			
Plan to Request Program Fee/Differentiated Tuition?		YES	NO
Estimated Amount: \$4,500 per semester; \$500 per credit hour			
Program Fee Justification: The program fee accounts for the higher costs of delivering instruction in this program. To develop a high-quality doctoral-level program, the intention is to keep cohort sizes relatively small (8-12 students to start). This will ensure that the program can keep class sizes manageable enough to allow for doctoral seminars with extensive class discussion and allow all students access to one-on-one faculty mentorship. While the program will hopefully increase in size over time, even scaled up the goal will be to keep cohorts small (15-20 students maximum) to allow for these discussion-focused seminars. These seminars and personalized faculty mentorship are both essential for a rigorous doctoral degree. These smaller class sizes, in conjunction with efforts to staff these courses entirely with our tenure-track faculty or career-track faculty who have obtained a doctoral degree, mean the cost of instruction in the program is higher than in other flexible degree programs and significantly higher than our EdPlus online master's degrees. The proposed program fee will make it feasible to deliver this program cost-effectively in ways that maximize access to faculty for students.			
Specialized Accreditation?		YES	NO
Accreditor: N/A			

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: BS in Public Health Technology
Academic Department: School of Public Health Technology
Geographic Site: Downtown Phoenix, Polytechnic, Tempe and West campus
Instructional Modality: Both Campus and Digital Immersion
Total Credit Hours: 120
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The BS in Public Health Technology will bring together faculty from a variety of disciplines to train students in dual competencies of public health as well as technology and engineering fields to offer innovative solutions to protecting and improving the health of people and their communities.</p> <p>The emerging field of Public Health Technology refers to the application or integration of technology to enhance public health research and practice, thereby improving the health of communities and populations. The field is unique in its use of various skills, tools, mindsets, and strategies from various technology and engineering fields to collect, manage, communicate, analyze, design, and intervene to effectively address public health issues affecting diverse populations and communities.</p> <p>This novel degree aims to attract students traditionally interested in the fields of health as well as students from a variety of technology and engineering fields (e.g. computer or information</p>

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sciences, engineering) to the emerging field of public health technology. The degree will be structured as a distributed model allowing existing and prospective students from a variety of health and technology disciplines to add specific, focused coursework from complementary fields such as computer science, geographic information science, data science and visualization, engineering, and global, population or public health. Through this model, students from various backgrounds will be able to leverage their knowledge and expertise within their specific field or discipline while gaining skills from another field or discipline (e.g. students interested in public health without a strong engineering/tech background can gain programming skills; whereas, students with a tech/engineering background without a strong public health background can apply their skillsets/mindsets to the public health content area).

The transdisciplinary core curriculum will include epidemiology, health information systems, disease surveillance and monitoring, environmental health, design principles, policy and ethics, health data and statistics, behavioral and social sciences, business and entrepreneurship, health communication and education, and the assessment and development of health technologies. By offering a transdisciplinary core curriculum, the program will prepare students to create tools, infrastructure, programs, products, and services to improve the public health of the communities they serve. Participating degree programs from health, technology and engineering fields throughout the university will complement the core curriculum by instantiating focused coursework in their discipline (e.g., engineering, computer science, geographic information systems).

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Graduates will demonstrate the ability to explain fundamental concepts, essential services, and core functions of public health.

- **Concepts:** core public health functions (i.e., assessment, policy development and assurance), essential public health services, structure and function of U.S. health care system and public health system; prevention science; environmental health; epidemiology; statistics/data analysis; program planning and evaluation; health equity; systems thinking; behavioral and social sciences; disease surveillance and monitoring; public policy; health care administration; ethics
- **Competencies:** Students will be able to explain core public health functions (i.e., assessment, policy development and assurance) and relate them to essential services of public health. Students will be able to illustrate the complexity of the U.S. public health system. Students will be able to recall terminology and demonstrate understanding of public health concepts. Students will be able to distinguish between public health and health care systems and their linkages (e.g., secondary prevention).
- **Assessment Methods:** Students will be assessed on their ability to explain fundamental concepts and core functions and recall essential services in the public health field, through a variety of projects and papers across public health courses. Students will also be evaluated in experiential and/or culminating experiences on these topics. Students will complete an exit survey that assesses their sense of preparedness to explain public health concepts, essential services and core functions.

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- **Measures:** Students will be measured with faculty-developed rubrics on the degree to which they can explain core functions of public health, describe the public health system, and recall public health terminology and concepts in completed projects, papers, experiential and/or culminating experiences as evaluated. Rubrics will be continually refined based on assessment outcomes and feedback, and results will be used by faculty to modify the program curriculum.

Learning Outcome 2: Students will exhibit knowledge of various skills, tools, mindsets and strategies from the technology and engineering fields.

- **Concepts:** specific skills, tools, mindsets, and strategies from technology and engineering fields include, but are not limited to: computer programming languages, engineering methodologies, design thinking, agile methodologies, artificial intelligence and machine learning, telemedicine, augmented reality (AR), virtual reality (VR), mixed reality (MR), user experience design and user interface design (UX/UI), simulation, remote monitoring technologies (e.g., wastewater monitoring, wearables), data analytics, pattern detection, simulation and visualization tools, medical devices, diagnostics, evidence-based decision making/scenario planning software, social media tools for improving health communication and combating health misinformation or disinformation, geographic information systems (GIS)
- **Competencies:** Students will have the ability to apply or use skills (e.g., programming), tools (e.g., GIS), mindsets (e.g., design thinking), or strategies (e.g., agile engineering) from technology and engineering fields to identify and solve practical public health problems.
- **Assessment Methods:** Students will also be evaluated on the extent of their familiarity with and application of skills, tools, mindsets and strategies from technology and engineering fields. Students will complete an exit survey that will assess their preparedness to use skills, tools, mindsets and strategies from these fields in work environments relevant to their career.
- **Measures:** Students will be measured with faculty-developed rubrics in the degree to which they can exhibit their knowledge and application of various skills, tools, mindsets and strategies from the technology and engineering fields. Results will be employed by faculty to revise the curriculum.

Learning Outcome 3: Students will employ skills, tools, mindsets and strategies from technology and engineering fields to propose innovative solutions for public health problems.

- **Concepts:** core functions, concepts and prevalent problems in public health; specific skills, tools, mindsets and strategies from technology and engineering fields, including but not limited to: computer programming languages, engineering methodologies, design thinking, artificial intelligence and machine learning, telemedicine, augmented reality (AR), virtual reality (VR), mixed reality (MR), user experience design and user interface design (UX/UI), simulation, remote monitoring technologies (e.g., wastewater monitoring, wearables, environmental sensors), data analytics, pattern detection, simulation and visualization tools, medical devices, diagnostics, evidence-based decision making/scenario planning software, social media tools for improving health

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communication and combating health misinformation or disinformation, geographic information systems (GIS)

- **Competencies:** Students will have the ability to develop or use technology skills (e.g., programming, engineering methodologies, GIS, wearables, Chat GPT) to address complex public health problems, and design solutions. Students will demonstrate realistic application of technology, including software or hardware, to collect, organize or analyze data from multiple sources (e.g., governmental and nonprofit organizations, populations, communities or businesses).
- **Assessment Methods:** Students will be assessed on their ability to propose solutions to public health problems by integrating or applying skills, tools, mindsets and strategies from technology and engineering fields throughout the coursework in the program. Students will also be assessed based on their ability to incorporate public health concepts into technology and engineering solutions for collecting, organizing or analyzing public health data from diverse sources such as governmental and nonprofit organizations, populations, communities or businesses as well as developing innovative solutions including apps, devices and system designs. Students will complete an exit survey that will assess their sense of preparedness to use or apply skills, tools, mindsets and strategies from technology and engineering fields in public health-related work environments relevant to their career.
- **Measures:** Students will be measured with faculty-developed rubrics in the degree to which they can propose solutions using skills, tools, mindsets and strategies from technology and engineering fields to address public health problems. Faculty-developed rubrics will be used to measure students' skills; and the innovative development, application or integration of tools; mindsets and strategies to collect, organize or analyze data from multiple sources (e.g., governmental and nonprofit organizations, populations, communities or businesses), as well as the ability to develop novel solutions with technologies and devices to address public health problems and health disparities. Results will be employed by faculty to revise curriculum.

Learning Outcome 4: Students will be able to effectively communicate complex public health concepts integrated with technology and engineering to diverse audiences.

- **Concepts:** effective written and oral communication about complicated public health concepts as well as complicated technology and engineering concepts, interprofessional teamwork and collaboration, cultural competence, community partnership and collaboration
- **Competencies:** Students will apply skills in written and oral communication, critical thinking and problem solving, and persuasive rhetoric and techniques for reaching diverse audiences. Students will demonstrate the importance of understanding how interprofessional teamwork, along with collaboration and partnership with diverse community members and organizations, can lead to improved public health outcomes.
- **Assessment Methods:** Students will be assigned projects where they will analyze the effectiveness of improving public health outcomes inclusive of technology and engineering concepts through the use of interprofessional teams, effective public health campaigns, and cross-cultural communication.

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- **Measures:** Students will be measured on their ability to communicate complex public health concepts and technologies to various stakeholders (professional and community) via an assessment tool. Students will be measured on the accuracy and appropriateness of their evaluation of a specific public health campaign. A culminating project will assess students' written and oral communication skills, as well as abilities to use new communication tools; and their ability to bridge cultural gaps, adapt communication styles, and ensure that public health information is accessible and relevant to individuals and communities from differing cultural backgrounds.

Projected Enrollment for the First Three Years:

Year 1: 10

Year 2: 50

Year 3: 100

Evidence of Market Demand:

Students studying public health technology will gain a strong foundation in the application of technology and data to improve public health outcomes and will be well-prepared to pursue careers in public health, health information management, health technology and related fields, as well as to continue to graduate study in public health or aligned science and engineering fields.

Students will be equipped to start their own entrepreneurial endeavors or go into existing public health technology fields, such as medical and health services, biostatistics, data science, health data management, corporate wellness, device development and health policy.

According to the Bureau of Labor Statistics, jobs for medical and health services managers are rising much faster than average, at 28%, with about 54,700 openings for medical and health services managers projected each year over the next decade and a lower quartile average salary of \$81,430. In Arizona, growth for this field is predicted to be even more significant at 67%, with 1400 job openings per year over the next decade.

Jobs for biostatisticians are growing nationally much faster than average at 32% with 3300 openings predicted per year over the next decade, and with a lower quartile average salary of \$76,360. Arizona is predicted to see a 48% growth in this field over the next decade.

Bioengineers and biomedical engineers can also look forward to a robust Arizona job market. While the field is predicted to grow by 5% nationally, Arizona is projected to have growth of 31% in this field over the next decade. Average lower quartile Arizona salaries for bioengineers and biomedical scientists are also higher than the national average (\$104,550 in Ariz. vs. \$78,500 nationally).

Employment opportunities for data scientists is expected to grow 35% by 2023, much faster than average occupations according to the Bureau of Labor Statistics. Lightcast identified over 50,000 total job postings for roles related to data science, with a minimum of a master's

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degree. The health focus of this program further ensures employment opportunities in this area.

Overall, health care occupations are also expected to grow, which necessitates innovative solutions to deal with the increase in health care demand for the aging population.

Similar Programs Offered at Arizona Public Universities:

The curriculum in the School of Public Health Technology will be unique in its interdisciplinary approach with a specific focus on technology and innovative applications to public health issues and strategies.

The University of Arizona has an undergraduate BS in Public Health, with emphasis areas in environmental and occupational health, global health, health promotion, health systems theory and practice, one health, public health practice and quantitative methods in public health.

Northern Arizona University has a BS in Health Sciences – Public Health. NAU also has MPH programs including Health Promotion, Indigenous Health, and Public Health-Nutrition.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No new resources will be required to support this program which will be managed initially by existing faculty.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: None

Program Fee Justification: Not applicable.

Specialized Accreditation? YES NO

Accreditor: None

EXECUTIVE SUMMARY**Request to Establish New Academic Program in Arizona****University: Arizona State University**

Name of Proposed Academic Program: MS in Public Health Technology
Academic Department: School of Public Health Technology
Geographic Site: Tempe, West, Downtown, Polytechnic campus
Instructional Modality: Immersion and Digital Immersion
Total Credit Hours: 30
Proposed Inception Term: Fall 2024
Brief Program Description: <p>The MS in Public Health Technology aims to train students in dual competencies of public health technology and engineering fields to create innovative solutions to protecting and improving the health of people and their communities.</p> <p>The emerging field of Public Health Technology refers to the application of technology to enhance public health research, practice and entrepreneurship to improve the health of communities and populations. The field is unique in its use of various skills, tools, mindsets and strategies from technology and engineering fields to collect, manage, communicate, analyze and intervene in public health issues affecting populations and communities.</p> <p>This novel MS program will bring together faculty from a variety of health, technology and engineering disciplines to offer students a curriculum designed to train them to create tools, infrastructure, programs, products and services to improve the public health of populations and communities. Students will develop skills in the principles and methods of public health and data analysis and will be able to implement and evaluate public health approaches. To</p>

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complement a public health skillset, students will be trained in the skills, tools, mindsets and strategies, from technology and engineering fields, to create and implement novel technology solutions to measuring, screening, preventing or intervening in public health-related outcomes. Students will also learn communication skills for educating individuals and communities about health risks and develop technologies to promote preventive health behaviors.

Designed to accommodate both full-time students and working professionals, the MS in Public Health Technology will welcome individuals from diverse backgrounds, including those with prior health or technology/engineering experience. The degree will be structured as a distributed model allowing existing and prospective students from various health and technology disciplines to add specific, focused coursework from complementary fields such as computer science, geographic information science, data science and visualization, engineering, global or population health. With the increasing use of technology across all aspects of health and health care, there is a critical need for a skilled workforce to design, implement and manage technology solutions in the public health workforce to modernize public health infrastructure.

The transdisciplinary core curriculum will include key competencies from public health, including graduate-level epidemiology, biostatistics, environmental health, behavior and social sciences, health policy and ethics, and health equity, along with fundamental skills, tools, mindsets and strategies from technology and engineering fields – examples include: systems engineering, programming languages, engineering methodologies, design thinking, and business and entrepreneurship. Transdisciplinary faculty committees will guide and support students' applied learning through an individualized culminating experience. By offering a transdisciplinary core curriculum, the program will prepare students to identify or create tools, infrastructure, programs, products and services to improve the public health of populations and communities. Participating degree programs from health, technology and engineering fields throughout the university will complement the core curriculum by instantiating focused coursework in their discipline (e.g., engineering, computer science, geographic information systems).

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Graduates will demonstrate the ability to collect, analyze, and interpret quantitative and qualitative public health data.

- **Concepts:** Principles of biostatistics, epidemiology, qualitative and quantitative research design methodology, program evaluation, qualitative survey, and interview design. Ability to identify, collect, and use public health data structures, data sources, and public health databases.
- **Competencies:** Explain concepts from biostatistics, epidemiology, qualitative and quantitative research design, survey and interview design; Apply quantitative or qualitative methods to collect data; Apply qualitative or epidemiologic and biostatistical methods to analyze public health data; Identify and access public health data sources.

- **Assessment Methods:** Students will be assessed on their ability to collect and analyze qualitative and quantitative public health data, properly interpret results, and explain implications to the public health field through a variety of projects and papers in public health courses. Students will also be evaluated in experiential and/or culminating experiences on these competencies. Students will complete an exit survey that assesses their sense of preparedness to collect and analyze data, interpret results, and explain implications for public health research and practice.
- **Measures:** Students will be measured with faculty-developed rubrics on the degree to which they can demonstrate the ability to collect and analyze public health data, properly interpret results, and explain implications in completed projects, papers, experiential and/or culminating experiences as evaluated. Rubrics will be continually refined based on assessment outcomes and feedback, and results will be used by faculty to modify program curriculum.

Learning Outcome 2: Students will demonstrate proficiency in the use of skills, tools, mindsets, and strategies from technology and engineering fields to public health problems.

- **Concepts:** Specific skills, tools, mindsets, and strategies from technology and engineering fields technologies and skills include, but are not limited to: Computer programming languages, engineering methodologies, design thinking, agile methodologies, artificial intelligence / machine learning, telemedicine, augmented reality (AR), virtual reality (VR), extended reality (XR), user experience design and user interface design (UX/UI), simulation, remote monitoring technologies (e.g. wastewater monitoring, wearables, environmental sensors), data analytics, pattern detection, simulation and visualization tools, medical devices, diagnostics, evidence-based decision making/scenario planning software, social media tool for improving health communication and combating health misinformation or disinformation, geographic information systems (GIS).
- **Competencies:** Ability to proficiently apply or use skills (e.g., programming), tools (e.g., GIS), mindsets (e.g., design thinking), or strategies (e.g., agile engineering) from technology and engineering fields to practical problems.
- **Assessment Methods:** Students will also be evaluated on the proficiency of their application of skills, tools, mindsets and strategies from technology and engineering fields to practical problems during coursework from technology or engineering disciplines. Students will complete an exit survey that will assess their sense of preparedness to use skills, tools, mindsets, and strategies from these fields in work environments relevant to their career.
- **Measures:** Students will be measured with faculty-developed rubrics in the degree to assess how they can apply their knowledge and application of various skills, tools, mindsets and strategies from the technology and engineering fields. Results will be employed by faculty to revise the curriculum.

Learning Outcome 3: Graduates will synthesize skills, tools, mindsets, and strategies from technology and engineering fields to propose innovative solutions for public health problems.

- **Concepts:** Core functions, concepts, and prevalent problems in public health; Specific skills, tools, mindsets, and strategies from technology and engineering fields include, but are not limited to: Computer programming languages, engineering methodologies, design thinking, artificial intelligence / machine learning, telemedicine, augmented reality (AR), virtual reality (VR), extended reality (XR), user experience design and user interface design (UX/UI), simulation, remote monitoring technologies (e.g. wastewater monitoring, wearables, environmental sensors), data analytics, pattern detection, simulation and visualization tools, medical devices, diagnostics, evidence-based decision making/scenario planning software, social media tool for improving health communication and combating health misinformation or disinformation, geographic information systems (GIS).
- **Competencies:** Ability to synthesize skills, tools, mindsets, and strategies (e.g., programming, engineering methodologies, GIS, wearables, large language models) and public health concepts to address complex public health problems. Propose new solutions from technology and engineering fields to collect, organize, or analyze data from multiple sources (e.g. governmental and nonprofit organizations, populations, communities, or businesses).
- **Assessment Methods:** Students will be assessed on their ability to synthesize solutions to public health problems by integrating skills, tools, mindsets, and strategies from technology and engineering fields into public health throughout the coursework and culminating experience (e.g., capstone) during the program. Students will also be assessed based on their ability to develop technology-inspired interventions or technology and engineering solutions for collecting, organizing, or analyzing public health data from diverse sources such as governmental and nonprofit organizations, populations, communities, or businesses throughout the coursework or experiential activities (e.g., public health technology hack-a-thons) during the program. Students will complete an exit survey that will assess their sense of preparedness to synthesize skills, tools, mindsets, and strategies from technology and engineering fields in public health-related work environments relevant to their career.
- **Measures:** Students will be measured with faculty-developed rubrics in the degree to which they can synthesize solutions using skills, tools, mindsets, and strategies from technology and engineering fields to address public health problems. Students will also be measured on skills, tools, mindsets, and strategies to collect, organize, or analyze data from multiple sources (e.g. governmental and nonprofit organizations, populations, communities, or businesses) with faculty-developed rubrics. Results will be employed by faculty to revise curriculum.

Learning Outcome 4: Students will be able to effectively communicate complex public health concepts to diverse audiences.

- **Concepts:** Effective written and oral communication about complicated public health concepts as well as complicated technology and engineering concepts, interprofessional teamwork and collaboration, cultural competence, community partnership and collaboration.
- **Competencies:** Students will apply skills in written and oral communication, critical thinking and problem solving, and persuasive rhetoric and techniques for reaching diverse audiences. Students will demonstrate the importance of understanding how interprofessional teamwork and collaboration and partnership with community members and organizations can lead to improved public health outcomes. Students will be able to explain complex technologies in a way that can be understood by community stakeholders, and will develop competencies with a variety of communication tools including conventional and social media to communicate effectively with diverse populations as well as combat misinformation.
- **Methods:** Students will be assigned a culminating project where they will analyze the effectiveness of improving public health outcomes with technology through the use of interprofessional teams, effective public health campaigns, and cross-cultural communication.
- **Measures:** Students will be measured on their ability to communicate complex public health concepts and technologies to both professional and diverse community stakeholders via an assessment tool. Students will be measured on the accuracy and appropriateness of their evaluation of a specific public health campaign. A culminating capstone project will assess the students' written and oral communication skills, facility with a variety of communication tools, and their ability to bridge cultural gaps, adapt communication styles, and ensure that public health information is accessible and relevant to individuals and communities from differing cultural backgrounds.

Projected Enrollment for the First Three Years:

Year 1: 25

Year 2: 50

Year 3: 100

Evidence of Market Demand:

Students studying public health technology will gain a strong foundation in the application of technology and data to improve public health outcomes and will be well-prepared to pursue careers in public health, health information management and related fields and health technology as well as to continue doctoral study in public or population health.

Students will be equipped to start their own entrepreneurial endeavors or go into existing public health technology fields, such as medical and health services managers, statisticians, data scientists, device designers and policymakers.

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According to the Bureau of Labor Statistics, jobs for biostatisticians are growing nationally much faster than average at 32% with 3300 openings predicted per year over the next decade, and with a median salary of \$98,920. Arizona is predicted to see a 48% growth in this field over the next decade.

According to Lightcast, jobs for medical and health services managers with a master's degree are rising much faster than average, at 18%, with about 15,537 openings for medical and health services managers projected each year over the next five years and median salary of \$103,938. In Arizona, growth for this field is predicted to be even greater at 22%, with 323 job openings per year over the next five years.

Bioengineers and biomedical engineers with a master's degree can also look forward to a robust Arizona job market. While the field is predicted to grow by 10% nationally over the next five years, Arizona is projected to have growth of 16% in this field in the same time period. Median Arizona salaries for bioengineers and biomedical scientists are also higher than the national average (\$119,800 in Arizona vs. \$99,550 nationally).

Employment opportunities for data scientists is expected to grow 35% by 2023, much faster than average occupations according to the Bureau of Labor Statistics. Lightcast identified over 50,000 total job postings for roles related to data science, with a minimum of a master's degree. The health focus of this program further ensures employment opportunities in this area.

Overall, health care occupations are also expected to grow, which necessitates innovative solutions to deal with the increase in health care demand for the aging population.

Similar Programs Offered at Arizona Public Universities:

The curriculum in the School of Public Health Technology will be unique in its interdisciplinary approach with a specific focus on technology and innovative applications to public health issues and strategies. At the graduate level, the University of Arizona offers a Master of Public Health (MPH) with concentrations in Applied Epidemiology, Biostatistics, Epidemiology, Family and Child Health, Global Health, Health Behavior Health Promotion, Health Services Administration, Environmental and Occupational Health, One Health, Public Health Policy and Management, and Public Health Practice. Northern Arizona University has MPH programs including Public Health-Health Promotion with an Indigenous Health emphasis, and Public Health-Nutrition.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

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New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):		
No new resources will be required to support this program which will be managed initially by existing faculty.		
Plan to Request Program Fee/Differentiated Tuition?	YES	NO
Estimated Amount: N/A		
Program Fee Justification: None		
Specialized Accreditation?	YES	NO
Accreditor: None		

EXECUTIVE SUMMARY

Request to Establish New Academic Program in Arizona

University: Arizona State University

<p>Name of Proposed Academic Program:</p> <p>Master of Advanced Study (MAS), Advanced Studies</p>
<p>Academic Department:</p> <p>Graduate College- Proposing Unit</p> <p>Participating Colleges:</p> <p>College of Global Futures College of Health Solutions College of Integrative Sciences and Arts Edson College of Nursing and Health Innovation Herberger Institute for Design and the Arts Ira A. Fulton Schools of Engineering Mary Lou Fulton Teachers College New College of Interdisciplinary Arts and Sciences Sandra Day O'Connor College of Law The College of Liberal Arts and Sciences Thunderbird School of Global Management W. P. Carey School of Business Walter Cronkite School of Journalism and Mass Communication Watts College of Public Service and Community Solutions</p>
<p>Geographic Site:</p> <p>Downtown Phoenix, Polytechnic, Tempe and West campus</p>
<p>Instructional Modality:</p> <p>Both Campus and Digital Immersion</p>
<p>Total Credit Hours:</p> <p>30</p>

EXECUTIVE SUMMARY**Proposed Inception Term:**

Fall 2024

Brief Program Description:

The Master of Advanced Study program will provide students the opportunity to focus their studies on two advanced knowledge areas by enrolling in official ASU graduate credentialed certificates, completing a master's culminating experience, then earning a master's degree as they have mastered advanced knowledge in these two knowledge areas. Each individual certificate is created by the overseeing college according to ordinary curriculum procedures. Based on their needs, the student will determine which ASU certificate will be their primary certificate. The college that awards the master's degree will be the same college that manages the primary certificate.

This approach allows students to obtain specific advanced skills from multiple areas, expanding the focus of their educational careers. Specific advanced skills and knowledge depend on the certificates chosen. Individualized learning provides students with an opportunity to complete their master's incrementally which may be more palpable to students who need to complete their program in stages to advance their skills for the workplace.

The MAS supports ASU's goal of fusing intellectual disciplines to enable student success.

The following are potential examples of options that could be created through this program:

1. Graduate Certificate in Computer-Assisted Language Learning + Graduate Certificate in Scientific Teaching in Higher Education = MAS in Advanced Studies, with a focus on Computer-Assisted Language Learning and Scientific Teaching in Higher Education
2. Graduate Certificate in Sustainability + Graduate Certificate in Geographic Information Science = MAS in Advanced Studies, with a focus on Sustainability and Geographic Information Science

Learning Outcomes and Assessment Plan:

Learning Outcome 1: Students will effectively demonstrate proficiency in the primary certificates knowledge area to develop advanced skills in the area.

- **Concepts:** knowledge area literacy, advanced skills in the area, inquiry and analysis.
- **Competencies:** Students will be able to demonstrate their facility with knowledge area content learned in their coursework and apply those skills to their current and future professions.
- **Assessment Methods:** The program that hosts the primary certificate will perform the assessment of the certificate. The assessment should include direct assessment through the successful completion of final projects/assignments/papers of the core

coursework for the certificate programs, which will be evaluated using faculty-designed rubrics. The successful completion of these final projects/assignments/papers will show competency in the students' advanced skills in the focus. Indirect assessment data will be obtained from a program survey available to faculty and students upon completion. In addition, this learning outcome will be tied to the successful completion of the certificate program itself. Faculty-designed rubrics customized to measure students' level of facility of advanced skills in primary certificate's knowledge area will be used to show students' competency in the knowledge area of the certificate. At least 80% of the participating students are expected to achieve a passing score on their final projects, assignments, or papers from the core certificate requirements of each core course of their primary certificate A program. The indirect assessment data obtained from the program survey will show success in the outcome if at least 80% of students self-assess primary certificate's program preparation of advanced skills knowledge as "meeting" or "exceeding" expectations on the survey rubric. Supervising faculty are expected to score the students' knowledge in primary certificate's advanced skills knowledge as "meet" or "exceed" expectations on the rubric.

- **Measures:** Data from the rubrics will be collected and analyzed to evaluate students' overall proficiency in the skills needed to have the ability to apply learned knowledge to current and future professions. Data will be reviewed annually to ensure students are meeting program expectations.

Learning Outcome 2: Students will effectively demonstrate proficiency in the secondary certificate's knowledge area to develop advanced skills in the focus area, subsequently earning a professional credential.

- **Concepts:** knowledge area literacy, advanced skills in the area, inquiry and analysis.
- **Competencies:** Students will be able to demonstrate their facility with domain content learned in their coursework and apply those skills to their current and future professions.
- **Assessment Methods:** The college that hosts the secondary certificate will determine the assessment process and measures for the certificate. The assessment should include direct assessment through the successful completion of final projects, assignments, or papers of the core coursework for the certificate program and will be evaluated using faculty-designed rubrics. The successful completion of these final projects, assignments, or papers will show competency in the students' advanced skills in the certificate's knowledge area. Indirect assessment data will be obtained from a program survey available to faculty and students upon completion. In addition, this learning outcome will be tied to the successful completion of the certificate program itself.

Faculty-designed rubrics customized to measure students' level of facility of advanced skills in the secondary certificate's knowledge area will be used to show students' competency in the knowledge area of the certificate. At least 80% of the participating students are expected to achieve a passing score on their final projects/assignments/papers from the core coursework of each core course of their secondary certificate program. The indirect assessment data obtained from the program

EXECUTIVE SUMMARY

survey will show success in the outcome if at least 80% of students self-assess secondary certificate's program preparation of advanced skills knowledge as "meeting" or "exceeding" expectations on the survey rubric. Supervising faculty are expected to score the students' knowledge in the secondary certificate's advanced skills knowledge as "meet" or "exceed" expectations on the rubric.

- **Measures:** Data from the rubrics will be collected and analyzed to evaluate students' overall proficiency in the skills needed to have the ability to apply learned knowledge to current and future professions. Data will be reviewed annually to ensure students are meeting program expectations.

Learning Outcome 3: Students will develop higher-level mastery of key skills in the primary certificate program to address a theoretical or applied research question as part of their culminating experience.

- **Concepts:** Topics in the primary knowledge area, interdisciplinary inquiry, major theories, applied research skills, critical thinking, master's level writing.
- **Competencies:** Students will have the ability to apply knowledge gained from coursework and literature from both certificate program areas and respond to an research question that encompasses the advanced skills of the primary knowledge area at a mastery level in their culminating experience.
- **Methods:** Direct assessment will be through evaluation of the student's response to the applied research question of the culminating experience at a mastery level to assess the student's knowledge of advanced key skills from the primary certificate area. Students will also be assessed on their ability to construct an applied research response from the coursework and literature, and successfully pass the culminating experience. A faculty-designed rubric will be used to evaluate the student's mastery level of advanced knowledge competency in their culminating experience. The rubrics will be customizable based on the student's certificate chosen and the agreed-upon expectations. Overall, the rubrics for the learning outcome will include the student's mastery of the advanced knowledge area and ability to propose a solution. Upon completion, culminating experience assessments will be submitted to the primary certificate's overseeing college by the supervising faculty. Indirect assessment will include a program completion survey for students and supervising faculty, providing information on perceptions and experiences leading up to the completion of the culminating experience.
- **Measures:** Assessment of a student's ability to utilize key skills acquired from the knowledge area of the primary certificate within their culminating experience will be measured using a faculty-developed rubric, customized by the primary college and the student's supervising faculty. The faculty evaluates the student's ability to address the applied research question at a mastery level. At least 80% of the students will meet (rating: 4) or exceed (rating: 5) expectations using the faculty-developed rubric. Indirect data will be gathered from program surveys completed by students and faculty. At least 80% of the students are expected to self-assess themselves as at least 3.5 out of 4 on the rubric. Supervising faculty are expected to score the students at least 3 out of 4 on the rubric. Culminating experience data and surveys will be compared annually for continuous improvement to ensure the overall quality of the program.

Projected Enrollment for the First Three Years:

Year 1: 30

Year 2: 100

Year 3: 200

Evidence of Market Demand:

The Master of Advanced Study program addresses overarching market trends by offering a flexible, tailored degree customized to the differing interests and needs of students and working professionals. Certificates provide valuable on- and off-ramps to education for students who may need to stop school for personal reasons, for example, to care for family members or for financial reasons. The security that this program model offers is especially beneficial for first-generation and low-income students, who can trust that completing even a portion of the program will advance their employment and opportunities through targeted credentials (<https://www.chronicle.com/article/stack-those-credentials/>). These considerations are even more significant in a post-pandemic educational and employment landscape.

Research Supporting the Stackable Graduate Certificate Model:

Stackable certificate options have gained increasing popularity among both students and institutions in the past decade, and have been discussed widely by sources including Businesswire, The Chronicle of Higher Education, Inside Higher Ed, U.S. News and World Report, The EvoLLLution, and Forbes. The U.S. Department of Labor defines stackable credentials as “part of a sequence of credentials that can be accumulated over time to build up an individual’s qualifications and help them move along a career pathway or up a career ladder to different and potentially higher-paying jobs”

(<https://www.dol.gov/sites/dolgov/files/ETA/advisories/TEGL/2010/TEGL15-10.pdf>). The U.S. Department of Education, Office of Career, Technical, and Adult Education has developed a toolkit that can assist educational institutions with stackable options leading to a bachelor’s degree. We have taken this to the next level and are utilizing a similar concept. Our program also leads to a master’s program as there is a need for short-term credentials for graduate students to advance more quickly in the workforce.

Research Supporting an Interdisciplinary Degree Model:

While this stackable master’s program is not explicitly “interdisciplinary,” the market demand aligns most with the concept of an interdisciplinary degree. The common theme is the flexibility of the degree program as well as the independent structure of the plan of study. Market demand shows that master’s programs that have interdisciplinary majors that build on two or more disciplines have flexibility in their fields of study.

The Bureau of Labor Statistics' occupational outlook handbook indicates that students who major in interdisciplinary studies have found employment mostly in the "other" category at 38%. Additional areas include management occupations (16%), educational instruction (14%), healthcare practitioners and technical occupations (14%), etc. Since the majority of

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interdisciplinary majors find employment outside of the standard U.S. Census Bureau categories based on a survey done by the Bureau, this shows that there is a need for graduates with a multidisciplinary background (<https://www.bls.gov/ooh/field-of-degree/interdisciplinary-studies/interdisciplinary-studies-field-of-degree.htm>).

Salaries can vary depending on the field(s) of study, disciplines pursued, and employment positions ultimately taken. The median annual wage is \$52,000 with an interdisciplinary bachelor's degree according to the Bureau of Labor Statistics. The Bureau data available is at the bachelor's degree level since interdisciplinary master's degrees are emerging programs. According to Lightcast 2002 data (<https://lightcast.io/>), the median salary for a graduate with an interdisciplinary master's degree is \$85,400 per year with the most common occupations as postsecondary teachers, general and operations managers, market research analysts and marketing specialists, and compliance officers. Regional trends in Lightcast show an expected 8.9% increase in jobs for multidisciplinary graduates with higher-level degrees from 2021 to 2033, an estimate based on the current job market trajectory. Salary increases with a master's degree and as graduates move into senior-level positions.

Similar Programs Offered at Arizona Public Universities:

The University of Arizona offers certificates that can be stacked to a master's degree, but it appears to be one certificate to one master's in similar disciplines. An example is the Graduate Certificate in Foundations of Data Science and the MS in Data Science.

<https://online.arizona.edu/programs/graduate/online-master-science-data-science-ms>.

To our knowledge, UArizona or NAU does not offer a MAS in a similar format that we are proposing.

Objection(s) Raised by Another Arizona Public University? YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):

No new resources are required to launch the program. The Graduate College will use existing faculty leadership and staff to administratively oversee and maintain the program in collaboration with each college at ASU.

Plan to Request Program Fee/Differentiated Tuition? YES NO

Estimated Amount: N/A

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Program Fee Justification: None

Specialized Accreditation? YES NO

Accreditor: None

EXECUTIVE SUMMARY

Item Name: Request for Approval of the 2023 Annual Report on Articulation and Transfer for Arizona Postsecondary Education

☒ Action Item

Requested Action: The board office asks the committee to review and forward to the board for approval the annual report on articulation and transfer, to be submitted to the Joint Legislative Budget Committee (JLBC) by December 15, 2023, as described in this executive summary.

Background

Each year Arizona's public universities and community colleges report on the progress made towards students transferring from Arizona's public community colleges to Arizona's public universities.

Since 1996, the Arizona Board of Regents and the Arizona community colleges have reported to the Legislature on progress toward implementing a statewide model for transfer by students from community colleges to the universities, developed by the AZTransfer Steering Committee. The report is due to the Joint Legislative Budget Committee by December 15.

The attached report describes the activities and accomplishments for the 2022-2023 academic year.

Discussion

The report represents a continued collaboration between Arizona's public community colleges and universities to ensure a smooth transition for students who transfer from community colleges to universities. This collaboration is critical to Arizona efforts to increase the numbers of individuals with baccalaureate degrees.

The report provides a snapshot of data related to student transfer among Arizona public community colleges and universities for the 2022-2023 academic year.

The report also provides information on the work performed by the AZTransfer Steering Committee. [The full report can be found here.](#)

AZTransfer develops and maintains web services and other resources related to

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operating the Arizona Transfer System and promoting transfer opportunities and programs. These tools and resources ensure faculty, staff, and students have access to transfer information from anywhere in the state.

The AZTransfer Steering Committee comes together to help students plan a seamless transfer without loss of academic credit. It does this by focusing on the Arizona General Education Curriculum (AGEC), majors and degrees, common courses, and electives, and supplement this foundation with credits earned through dual enrollment and exams.

All this effort is intended to assist community college students to seamlessly transfer to ASU through a MAPP or TAG program, NAU through The Connect 2 NAU program, the UA through the UA Bridge program or other transfer options.

Statutory/Policy Requirements

ARS §15-1824, "Transfer Articulation, Common Numbering, Reports"

480-727-9920

EXECUTIVE SUMMARY**Project Delivery Method and Process**

- The project will be constructed through the Design Build (DB) delivery method. This approach was selected to streamline project delivery and to alleviate potentially adversarial project environments.
- ASU has selected Chasse Building Team as the contractor and Spectrum Engineers as the engineer of record for this project. The selection process included six responses and three teams were interviewed.

Project Status and Schedule

- The project is scheduled to begin construction in February 2024 and is scheduled for completion in October 2024.

Project Cost

- The budget for this approximately 3,000 gross-square-foot project is \$17.3 million, representing an estimated construction cost of approximately \$4,600 per gross square foot. The estimated total project cost is \$5,767 per gross square foot.
- By comparison, the existing Central Chiller Plant on Tempe Campus was upgraded in 2016 to replace obsolete mechanical equipment and upgrade the control system at a cost of \$10,319,120. Unlike this renovation and upgrade, this utilities expansion project will be a completely new design build project.

- **Comparable Projects:**

Project	Description	Location	Project Size GSF	Total Project Cost/GSF	Year Completed
NCP Satellite Central Plant	New facility with 5,000 tons of chiller capability	Tempe	4,500	\$1,644	2016
Infrastructure Phase VI	Renovations to existing Arizona Health Sciences Center Central Heating and Refrigeration Plant, including two 5,000-ton chillers and three 30,000 LB/HR broilers	Tucson	36,221	\$511	2006
Average Comparable Total Project Cost				\$1,078	

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Fiscal Impact and Financing Plan

- This \$17.3 million project will be debt-financed with system revenue bonds and amortized over an approximately thirty-year term. The annual debt service will be funded by tuition and is included in current budget planning.
- ASU will:
 - (a) issue one or more series of system revenue bonds to finance the project, costs of issuance of the bonds and payments to a bond insurer or other credit enhancer, provided such payments result in a benefit that exceeds the amount of such payments;
 - (b) issue bonds at a price at, above or below par, on a tax-exempt or taxable basis, in one or more series, at a fixed or variable rate of interest;
 - (c) enter into necessary agreements, including those related to bond insurance or other credit enhancement agreements, if any; and
 - (d) utilize a financial advisor, bond counsel, and bond trustee for the financing. The system revenue bonds will be marketed and sold on a negotiated basis, either to one or more investment banking firms currently in a pool of bond underwriters procured by the three state universities or by the State of Arizona or by a direct sale to a bank or banks or other financial institutions.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project is 0.03 percent.
- Operations and maintenance costs are estimated at \$118,642 annually and will be funded by tuition.

Occupancy Plan

- This project will not affect occupancy but will provide increased infrastructure to support continued Poly campus physical expansion and new programs that support the advancement of the university's academic and research initiatives.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.A, all Major Capital Projects require committee review and board approval.
- Pursuant to ABOR Policy 7-102.B.4, Major Capital Projects that are included in an approved ACP must be submitted for individual project and financing review by the Finance, Capital and Resources Committee and approval by the board, based upon the budget, schedule, scope, and other considerations as warranted.

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- Pursuant to ABOR Policy 7-102.B.4.a.1, individual project and financing approval authorizes a university to proceed with financing and execution of construction contracts for an approved project.

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Capital Project Information Summary**University:** Arizona State University **Project Name:** Polytechnic Utilities Expansion

Project Description and Location: This project constructs a new 3,000 gross-square-foot modular chiller plant to provide additional capacity to the existing chilled water loop, which will supply existing and future buildings across the growing Polytechnic campus. This includes core facilities already connected to the chilled water loop, such as research facilities, food services, the Sun Devil Fitness Center, and academic buildings, as well as planned facilities including the multi-level Interdisciplinary Science and Technologies Building 12 housing new manufacturing engineering programs. The plant will be located west of the existing Central Plant on the north side of East Unity Avenue, as depicted on the attached map as Exhibit A.

Project Schedule:

Planning	June	2019
Design Start	October	2023
Construction Start	February	2024
Construction Completion	October	2024

Project Budget:

Total Project Cost	\$ 17,300,000
Total Project Construction Cost	\$ 13,800,000
Total Project Cost per GSF	\$ 5,767
Construction Cost per GSF	\$ 4,600

Estimated Annual O&M Cost:

Utilities	\$ 8,928
Personnel	99,807
All Other Operations	9,907
Subtotal	\$ 118,642

Funding Sources:

A. System Revenue Bonds	\$ 17,300,000
Debt Service Funding Source:	Tuition
Operation/Maintenance	\$ 118,642
Funding Source:	Tuition

EXECUTIVE SUMMARY**Capital Project Budget Summary****University:** Arizona State University**Project:** Polytechnic Utilities Expansion

	Annual Capital Plan	Individual Project Approval
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction	\$ 11,100,000	\$ 11,100,000
B. Tenant Improvement		
C. Special Fixed Equipment	-	-
D. Site Development (excl. 2.E.)	-	-
E. Parking and Landscaping	350,000	350,000
F. Utilities Extensions	2,300,000	2,300,000
G. Other* (Demolition/abatement)	50,000	50,000
Subtotal Construction Cost	<u>\$ 13,800,000</u>	<u>\$ 13,800,000</u>
3. Fees		
A. CMAR Pre-Construction	\$ 100,000	\$ 100,000
B. Architect/Engineer	1,100,000	1,100,000
C. Other		
Subtotal Consultant Fees	<u>\$ 1,200,000</u>	<u>\$ 1,200,000</u>
4. FF&E Movable	\$ -	\$ -
5. Contingency, Design Phase	150,000	150,000
6. Contingency, Constr. Phase	1,326,000	1,326,000
7. Parking Reserve	-	-
8. Telecommunications Equipment	20,000	20,000
Subtotal Items 4-8	<u>\$ 1,496,000</u>	<u>\$ 1,496,000</u>
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement	\$ 236,000	\$ 236,000
B. Move-in Costs		
C. Printing Advertisement		
D. Keying, signage, facilities support	35,000	35,000
E. Project Management Cost	490,000	490,000
F. State Risk Mgt. Ins. (.0034 **)	43,000	43,000
Subtotal Addl. Univ. Costs	<u>\$ 804,000</u>	<u>\$ 804,000</u>
Total Capital Cost	<u><u>\$ 17,300,000</u></u>	<u><u>\$ 17,300,000</u></u>

* Universities shall identify items included in this category.

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.



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EXECUTIVE SUMMARY

Item Name: **Review of Financing for the 2017 Nanotechnology, LLC
Refunding Bonds for Arizona State University**

☒ Action Item

Requested Action: Arizona State University (ASU) asks the committee to review and recommend forwarding to the full board financing approval to refund the outstanding ASU Nanotechnology, LLC Bonds, with ASU System Revenue Refunding Bonds in an amount not to exceed the amount necessary to refund the Nanotechnology, LLC Bonds and to pay associated issuance and transaction costs, as described in this executive summary.

Background/History of Previous Board Action

- In March 2004, the board approved the formation of ASU Nanotechnology, LLC, a wholly-owned subsidiary of Arizona Capital Facilities Finance Corporation, an organization formed to assist the University with various projects, to acquire, improve and equip a technology research facility now known as ASU MacroTechnology Works, located in the Arizona State University Research Park in Tempe, Arizona. Additionally, the board approved execution of a lease agreement between ASU Nanotechnology, LLC and the University, as the tenant of the facility, and the issuance by ASU Nanotechnology, LLC of \$35.0 million of its Variable Rate Lease Revenue Bonds (2004AB Variable Rate Lease Revenue Bonds).
- In April 2009, ASU Nanotechnology LLC refunded the 2004AB Variable Rate Lease Revenue Bonds with fixed-rate 2009AB Lease Revenue Refunding Bonds, of which \$29.4 million was outstanding.
- In December 2017, ASU Nanotechnology LLC refunded the 2009AB Lease Revenue Refunding Bonds with fixed-rate 2017 Lease Revenue Refunding Bonds, of which \$22 million is currently outstanding.
- In June 2023, the board approved the MacroTechnology Works Area 2 Renovation project to facilitate collaboration with Applied Materials, Inc.

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480-727-9920

EXECUTIVE SUMMARY

Discussion

- Tax-exempt bonds are subject to certain federal tax law restrictions on the use of the financed facility by non-state and local governmental issuers. To accommodate planned additional third-party collaboration and use of space in the facility by private entities, the University seeks approval to refund the existing ASU Nanotechnology LLC tax-exempt bonds with ASU system revenue taxable bonds. This action would eliminate the federal tax law restrictions on private uses of and in the facility if the bonds remain tax-exempt.
- The University will refinance all or a portion of the outstanding \$19.6 million of ASU Nanotechnology LLC 2017 Lease Revenue Refunding Bonds with taxable system revenue bonds and pay costs of issuance. The refunding bonds will be issued as fixed-rate system revenue bonds of the University that mature over the same time period as the 2017 Lease Revenue Refunding Bonds of the ASU Nanotechnology LLC, with a final maturity of 2034. System revenue bonds are being used for the refunding given their lower interest costs, which reduces the higher debt service cost to the University of converting from the existing tax-exempt bond structure to taxable bonds.
- The University will evaluate bond insurers available in the market at the time of sale. The decision as to whether bond insurance will be used will be a function of market conditions and the bond insurer's ratings at the time of pricing. Bond insurance will be used only if the insurance provides a demonstrated economic benefit, as required by federal tax law.
- By refunding the existing ASU Nanotechnology LLC tax-exempt bonds with higher interest rate ASU system revenue taxable bonds, the University is expected to pay higher interest costs over the term of the financing, estimated at \$1.7 million on a present value basis, based on an assumed interest rate for the taxable refunding bonds of 4.92 percent. The actual amount of additional interest to be paid may be higher or lower, depending on the interest rate environment at the time of the sale of the refunding bonds.

Fiscal Impact and Financing Plan

- The University will issue taxable system revenue refunding bonds in an amount sufficient to refund the existing tax-exempt ASU Nanotechnology, LLC Bonds and to pay the costs of issuance. The refunding bonds will have a final maturity of July 1, 2034. The increase in debt service will be funded by new economy initiative and local funds and is included in current budget planning. The transition from tax-exempt to taxable bonds will increase the debt service by approximately \$200,000 annually.

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- ASU will:
 - (a) issue one or more series of taxable system revenue bonds to finance the refunding of the existing ASU Nanotechnology, LLC Bonds, pay costs of issuance and payments to a bond insurer or other credit enhancer, if any, provided such payments result in a benefit that exceeds the amount of such payments;
 - (b) issue bonds, on a taxable basis, in one or more series, at a fixed rate of interest;
 - (c) enter into necessary agreements, including those related to bond insurance or other credit enhancement agreements, if any; and
 - (d) utilize a financial advisor, bond counsel, and bond trustee for the financing. The system revenue bonds will be marketed and sold on a negotiated basis, either to one or more investment banking firms currently in a pool of bond underwriters procured by the three state universities or by the State of Arizona or by a direct sale to a bank or banks or other financial institutions.
- **Debt Ratio Impact:** The system revenue bonds will increase the debt ratio by approximately 0.06 percent.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 3-501, matters related to the issuance and sale of debt must be presented for board action as outlined in board policy.

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EXECUTIVE SUMMARY

Item Name: **Review of Individual Project and Financing for UAHS Building 201 Remodel – 1st Floor Relocation/Expansion Medical Imaging Administration and Faculty Offices Renovation Project for the University of Arizona**

☒ Action Item

Requested Action: The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for individual project and financing approval of its UAHS Building 201 Remodel – 1st Floor Relocation/Expansion Medical Imaging Administration and Faculty Offices Renovation Project, as described in this executive summary. The 16,500 square foot, \$10 million major capital project will be financed with Institutional Funds.

Background/History of Previous Board Action

- Capital Improvement Plan FY 2023 – 2025 September 2021
- Annual Capital Plan September 2022
- Annual Capital Plan September 2023

Project Justification/Description/Scope

- This project is a continuation of UArizona’s ongoing plan to renovate existing space within Building 201 at the University of Arizona Health Sciences complex that was vacated by Banner Health.
- This project will renovate approximately 16,500 square feet of existing space on the 1st Floor of Building 201 recently vacated by Banner Health to provide administrative and faculty offices for the Department of Medical Imaging that will incorporate the latest thinking/design concepts regarding this type of space.

Project Delivery Method and Process

- This project is being delivered through the Design-Build (D-B) delivery method. This approach was selected for this project because it can provide early cost control, save time through fast-track project scheduling while still providing contractor design input and coordination throughout the project, improving potentially adversarial project environments and still allowing for the selection of the most qualified architect-contractor team for this project. Through peer review of the D-B’s cost

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EXECUTIVE SUMMARY

estimate at each phase, and low-bid subcontractor work for the actual construction work, this method also provides a high level of cost and quality control.

- The Design-Builder provides a Guaranteed Maximum Price (GMP) based upon the amount previously agreed upon in the Design-Build agreement. The Design-Builder is at risk to provide the completed project within that price. In the selection of major subcontractors, the Design-Builder uses a qualification-based selection process prescribed by the ABOR Procurement Code to allow major subcontractors a design-assist role during the design phase. All remaining subcontractor work is awarded on the basis of the lowest responsive and responsible subcontractor bids. For this work, a minimum of three subcontractor bids will be required, except for specialty items or instances where proprietary systems are required, such as for energy management systems and door locks. A final report on project control procedures will be provided at project completion.
- The Design-Build Team has been selected through the capital project selection committee process prescribed by the ABOR Procurement Code. A licensed contractor was included on the selection committee as required by ABOR Policy.

Project Status and Schedule

- Design and planning phase is currently underway.
- Project construction is scheduled to commence during winter 2023/2024 and will be completed during winter 2024/2025.

Project Cost

- This project encompasses 16,500 gross square feet (gsf), including 11,500 net assignable square feet (nasf).
- The construction cost for this project is \$7.15 million (\$433 per gross square foot), and the total project cost is \$10 million (\$606 per gross square foot).

EXECUTIVE SUMMARY

- Comparable previously approved projects:

Comparable Similar Previously Approved Projects					
Project	University	Total Project Budget	Project GSF	Total \$/GSF	Constr. \$/GSF
UAHS Bldg 201 Renovations	UA	\$23,000,000	39,700	\$580/GSF	\$389/GSF
UA Administration Bldg Renovation	UA	\$2,200,000	3,800	\$579/GSF	\$382/GSF

Fiscal Impact and Financing Plan

- The University plans to use \$10 million in institutional funding to finance the project.
- The estimated Operations and Maintenance (O&M) cost for the project is \$136,900. The University plans to fund the O&M with Facility & Administrative rate funds.
- **Debt Ratio Impact:** The project will have no impact on the University's debt ratios because no debt will be issued to finance the project.

Occupancy Plan

- It is anticipated that after project completion, the Department of Medical Imaging will then vacate 13,000 gsf of space for use by the UAHS Physical Therapy Program.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.
- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.
- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

EXECUTIVE SUMMARY

UArizona
Capital Project Information Summary
UAHS Building 201 Remodel – 1st Floor Relocation/Expansion
Medical Imaging Administration and Faculty Offices Renovation Project

Project Description / Location:

- This project will renovate approximately 16,500 square feet of existing space within Building 201 at University Arizona Health Sciences complex in Tucson that was vacated by Banner Health and will provide administrative and faculty offices for the Department of Medical Imaging that will incorporate the latest thinking/design concepts regarding this type of space.

	<u>FY 2024 Annual Capital Plan</u>	<u>Individual Project Financing Report</u>
<u>Project Schedule (Beginning Month/Year):</u>		
Planning	Fall 2022	Fall 2022
Design	Spring 2023	Spring 2023
Construction	Winter 2023/24	Winter 2023/24
Occupancy	Winter 2024/25	Winter 2024/25

Project Budget:

Total Project Cost	\$ 10,000,000	\$ 10,000,000
Total Project Cost per GSF	\$ 606	\$ 606
Direct Construction Cost - Renovation	\$ 7,150,000	\$ 7,150,000
Construction Cost per GSF - Renovation	\$433	\$433
Change in Annual Oper./Maint. Cost		
Utilities	\$ 54,600	\$54,600
Personnel	\$ 55,100	\$55,100
Other	\$ 27,200	\$27,200

Funding Sources:

Capital:		
• Institutional funding	\$ 10,000,000	\$ 10,000,000
Operation/Maintenance:		
• F&A	\$ 136,900	\$ 136,900

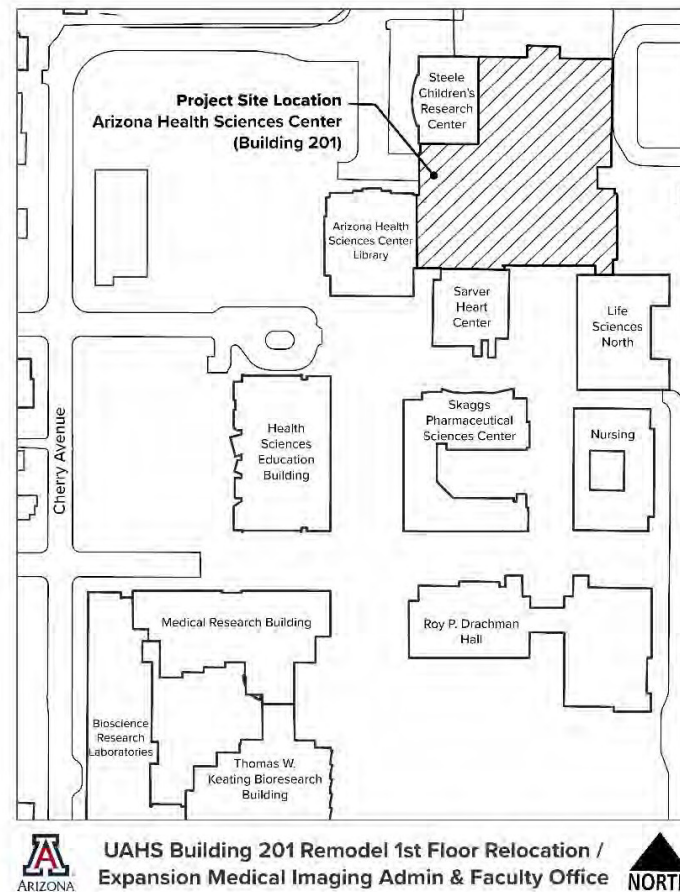
EXECUTIVE SUMMARY

UArizona
Capital Project Budget Summary
UAHS Building 201 Remodel – 1st Floor Relocation/Expansion Medical
Imaging Administration and Faculty Offices Renovation Project

<u>Date of Budget Estimate</u>	<u>FY 2024 Annual Capital</u>		<u>Individual Project</u>
	<u>Plan</u>		<u>Financing Report</u>
	<u>Sept 2023</u>		<u>Nov 2023</u>
1. Land	\$ 0		0
2. Construction Cost			
A. New Construction	\$ 0		0
B. Renovation	\$ 7,150,000		7,150,000
C. Fixed Equipment	\$ 0		0
D. Site Development (exclude 2.E.)	\$ 0		0
E. Parking & Landscaping	\$ 0		0
F. Utilities Extensions	\$ 0		0
G. Other (asbestos only)	\$ 100,000		100,000
Subtotal Construction Cost	\$ 7,250,000		7,250,000
3. Consultant Fees			
A. Construction Manager	\$ 108,000		108,000
B. Architect/Engineering Fees	\$ 795,000		795,000
C. Other (Programming, Special Consult.)	\$ 0		0
Subtotal Consultant Fees	\$ 903,000		903,000
4. Furniture Fixtures and Equipment	\$ 715,000		715,000
5. Contingency, Design Phase	\$ 216,000		216,000
6. Contingency, Construction Phase	\$ 362,000		362,000
7. Parking Reserve	\$ 0		0
8. Telecommunications Equipment	\$ 190,000		190,000
Subtotal Items 4-8	\$ 1,483,000		1,483,000
9. Additional University Costs			
A. Surveys and Tests	\$ 10,000		10,000
B. Move-in Costs	\$ 20,000		20,000
C. Public Art	\$ 0		0
D. Printing/Advertisement	\$ 5,000		5,000
E. Univ. Facilities & Project Management	\$ 277,000		277,000
F. State Risk Mgt. Ins	\$ 52,000		52,000
Subtotal Additional University Costs	\$ 364,000		364,000
TOTAL CAPITAL COST	\$ 10,000,000		10,000,000

EXECUTIVE SUMMARY

**UArizona
Project Site Location Map
UAHS Building 201 Remodel – 1st Floor Relocation/Expansion Medical
Imaging Administration and Faculty Offices Renovation Project**



EXECUTIVE SUMMARY

Item Name: **Review of Individual Project and Financing for Food Project and Safety Lab Renovation (FPSL) for the University of Arizona**

☒ Action Item

Requested Action: The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for individual project and financing approval of its Food Product and Safety Lab Renovation Project, as described in this executive summary. The 16,800 square foot, \$10.9 million major capital project will be financed with New Economy Initiative state funding.

Background/History of Previous Board Action

- Capital Improvement Plan FY 2023 – 2025 September 2021
- Annual Capital Plans September 2022 and 2023

Project Justification/Description/Scope

- The existing Food Product and Safety Lab has been in operation since the 1970's and requires upgrading/renovating to meet current standards and fulfill the University's teaching, research, and extension missions. The existing cooling equipment is 33 years old and is very energy inefficient. FPSL's research mission could be compromised if the equipment fails while running a trial. The thermal processing equipment dates to the 1970's and is out of date for today's teaching and research standards. The animal handling equipment/infrastructure needs to be upgraded to meet today's standards for animal welfare. A security/alarm system is needed to monitor and deter potential security threats. Truck handling will be improved to increase the facility's access efficiency.

Project Delivery Method and Process

- This project is being delivered through the Design-Build (D-B) delivery method. This approach was selected for this project because it can provide early cost control, save time through fast-track project scheduling while still providing contractor design input and coordination throughout the project, improving potentially adversarial project environments and still allowing for the selection of the most qualified architect-contractor team for this project. Through peer review of the D-B's cost estimate at each phase, and low-bid subcontractor work for the actual construction work, this method also provides a high level of cost and quality control.

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EXECUTIVE SUMMARY

- The Design-Builder provides a Guaranteed Maximum Price (GMP) based upon the amount previously agreed upon in the Design-Build agreement. The Design-Builder is at risk to provide the completed project within that price. In the selection of major subcontractors, the Design-Builder uses a qualification-based selection process prescribed by the ABOR Procurement Code to allow major subcontractors a design-assist role during the design phase. All remaining subcontractor work is awarded on the basis of the lowest responsive and responsible subcontractor bids. For this work, a minimum of three subcontractor bids will be required, except for specialty items or instances where proprietary systems are required, such as for energy management systems and door locks. A final report on project control procedures will be provided at project completion.
- The Design-Build Team has been selected through the capital project selection committee process prescribed by the ABOR Procurement Code. A licensed contractor was included on the selection committee as required by ABOR Policy.

Project Status and Schedule

- Design phase is currently underway.
- Project construction is scheduled to commence during winter 2023 and will be completed during early summer 2024.

Project Cost

- This project encompasses 16,800 gross square feet (gsf), including 11,000 net assignable square feet (nasf).
- The construction cost for this project is \$6.3 million (\$374 per gross square foot), and the total project cost is \$10.9 million (\$648 per gross square foot).
- Given the extremely specialized nature of the Food Product Safety Lab, there are no similar previously approved projects for which to compare costs.

Fiscal Impact and Financing Plan

- The University plans to use \$10.9 million in state funding from the New Economy Initiative to finance the project. This is a one-time capital outlay appropriation for this project
- The Operations and Maintenance (O&M) cost for the project is already included in the University's current budget.

EXECUTIVE SUMMARY

- **Debt Ratio Impact:** The project will have no impact on the University's debt ratios because no debt will be issued to finance the project.

Occupancy Plan

- It is not anticipated that any existing space will be released, or that any existing facilities will be demolished.

Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.4, each university shall submit an individual project and financing plan.
- Individual project and financing plans are reviewed by the University Governance and Operations Committee and approved by the board.
- Approval of the individual project and financing plan authorizes the university to proceed with financing and execution of construction contracts for the project.

EXECUTIVE SUMMARY

UArizona
Capital Project Information Summary
Food Product and Safety Lab Renovation (FPSL)

Project Description / Location:

This project will re-envision and renovate the existing FPSL to meet current animal welfare standards and fulfill the University's teaching, research and extension missions. It will be located at the UArizona Campus Agricultural Center in Tucson.

	<u>FY 2024 Annual Capital Plan</u>	<u>Individual Project Financing Report</u>
<u>Project Schedule (Beginning Month/Year):</u>		
Planning	Fall 2022	Fall 2022
Design	Spring 2023	Spring 2023
Construction	Winter 2023/24	Winter 2023/24
Occupancy	Fall 2024	Fall 2024
<u>Project Budget:</u>		
Total Project Cost	\$ 10,900,000	\$10,900,000
Total Project Cost per GSF	\$ 648	\$ 648
Direct Construction Cost - Renovation	\$ 6,300,000	\$ 6,300,000
Construction Cost per GSF - Renovation	\$ 374	\$ 374
Change in Annual Oper./Maint. Cost		
Utilities	\$ N/A	\$ N/A
Personnel	\$ N/A	\$ N/A
Other	\$ N/A	\$ N/A

Funding Sources:

Capital:		
• State Funding	\$ 10,900,000	\$ 10,900,000
Operation/Maintenance:		
• In current budget	\$ 0	\$ 0

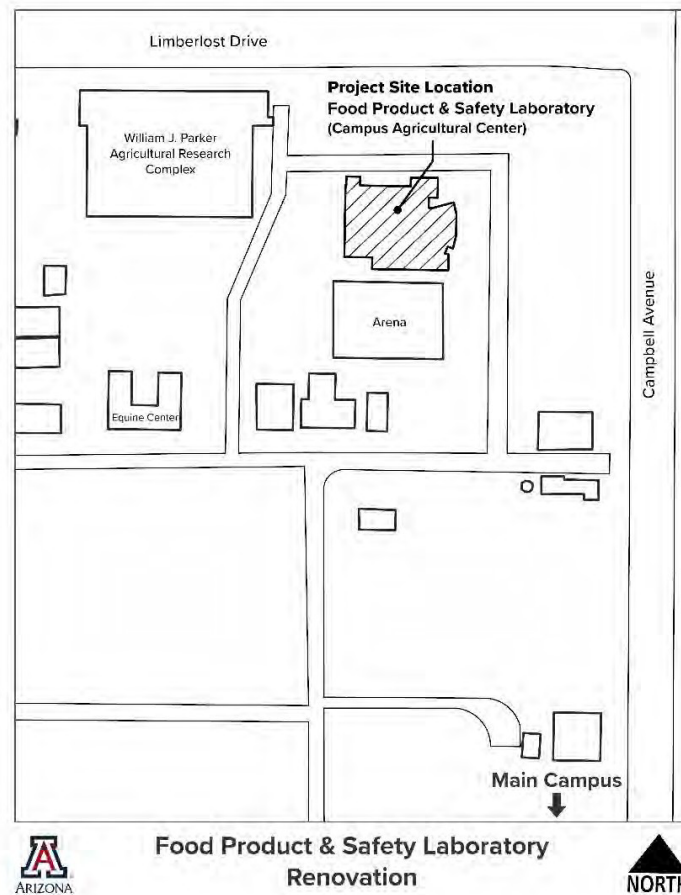
EXECUTIVE SUMMARY

UArizona
Capital Project Budget Summary
Food Product and Safety Lab Renovation (FPSL)

<u>Date of Budget Estimate</u>	<u>FY 2024 Annual Capital</u>		<u>Individual Project</u>	
	<u>Plan</u>		<u>Financing Report</u>	
	<u>Sept 2023</u>		<u>Nov 2023</u>	
1. Land	\$	0	\$	0
2. Construction Cost				
A. New Construction	\$	0	\$	0
B. Renovation	\$	6,300,000	\$	6,300,000
C. Fixed Equipment	\$	1,500,000	\$	1,500,000
D. Site Development (exclude 2.E.)	\$	500,000	\$	500,000
E. Parking & Landscaping	\$	0	\$	0
F. Utilities Extensions	\$	500,000	\$	500,000
G. Other (asbestos only)	\$	0	\$	0
Subtotal Construction Cost	\$	8,800,000	\$	8,800,000
3. Consultant Fees				
A. Design Builder	\$	100,000	\$	100,000
B. Architect/Engineering Fees	\$	730,000	\$	730,000
C. Other (Programming, Special Consult.)	\$	0	\$	0
Subtotal Consultant Fees	\$	830,000	\$	830,000
4. Furniture Fixtures and Equipment	\$	0	\$	0
5. Contingency, Design Phase	\$	350,000	\$	350,000
6. Contingency, Construction Phase	\$	350,000	\$	350,000
7. Parking Reserve	\$	0	\$	0
8. Telecommunications Equipment	\$	100,000	\$	100,000
Subtotal Items 4-8	\$	800,000	\$	800,000
9. Additional University Costs				
A. Surveys and Tests	\$	9,000	\$	9,000
B. Move-in Costs	\$	0	\$	0
C. Public Art	\$	0	\$	0
D. Printing/Advertisement	\$	1,000	\$	1,000
E. Univ. Facilities & Project Management	\$	400,000	\$	400,000
F. State Risk Mgt. Ins	\$	60,000	\$	60,000
Subtotal Additional University Costs	\$	471,000	\$	471,000
TOTAL CAPITAL COST	\$	10,900,000	\$	10,900,000

EXECUTIVE SUMMARY

**UArizona
Project Site Location Map
Food Product and Safety Lab Renovation (FPSL)**



EXECUTIVE SUMMARY

Item Name: **Review of Long-Term Ground Lease for the Arizona Public Media AM Radio Transmitter Site for the University of Arizona**

☒ Action Item

Requested Action: The University of Arizona (UArizona) asks the committee to review and recommend forwarding to the board for approval of a 50-year ground lease with Campus Research Corporation of a ±5-acre parcel of land located at the University of Arizona Tech Park at Rita Road, Pima County, Arizona, as described in this executive summary.

Background/History of Previous Board Action

- During the June 2023 meeting, ABOR approved the sale at public auction of a 14.52-acre parcel of real property located at 9100 N. I-10 WB Frontage Road in Marana, Pima County, Arizona (the “Transmitter Site”), which has been used as an AM radio station for Arizona Public Media (“AZPM”) since 1967.
- AZPM no longer has a strategic use for the Transmitter Site due to insufficient transmission capabilities and impending future development surrounding the facility.
- AZPM will use the proceeds from the sale of the Transmitter Site to fund the relocation of the transmitters and towers to the University of Arizona Tech Park at Rita Road which is better suited for broadcasting and transmitting infrastructure.

Discussion

- The University of Arizona Tech Park at Rita Road comprises approximately 1,267 acres focusing on technology, innovation, development, and education. The proposed site (the “Subject Property”), as indicated on the attached **Exhibit “A,”** is appropriately situated within the Tech Park in a partially developed area in southeastern Tucson and supports the transmitting requirements for AZPM’s new site.
- The University proposes to enter into a ground lease with Campus Research Corporation of the Subject Property for a 50-year term at an annual rental rate of \$4,650, with ten percent (10%) increases every 10-year period. UArizona would be responsible for all operations and maintenance of the Subject Property during the lease term.

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EXECUTIVE SUMMARY

- Proceeds from the sale of the current Transmitter Site will fund AZPM's construction of a small transmission building and three 198-foot towers on the Subject Property and the acquisition of production and broadcast equipment for the new AZPM facility at the UA Tech Park at The Bridges.
- As a provision of the ground lease, UArizona would have the right to terminate in the event the new transmitting station is sold, AM radio is no longer in use, or in the event the FCC license to operate this facility is rescinded. The lease execution is contingent upon the required authorization by the Federal Communications Commission (FCC) to relocate the current facility to the UA Tech Park.

Statutory/Policy Requirements

- ABOR Policy 7-207A.1.a requires that all leases, in which a university is tenant, that exceed an initial term of 60 months and/or a renewal term of 60 months must be reviewed by this committee and approved by the board.

EXECUTIVE SUMMARY

EXHIBIT "A"
Subject Property

