

UNIVERSITY OF NEBRASKA

STRATEGIC PLAN

INFORMATION TECHNOLOGY SERVICES

FALL 2020



IN SERVICE TO THE UNIVERSITY OF NEBRASKA

NU MISSION

The University of Nebraska system exists to transform lives and communities in Nebraska and around the world. The four campuses of the University system bring unique strengths together to create an exceptional level of quality and impact - through accessible and excellent education for diverse populations of students, research and creative activity that generates new knowledge, and service and engagement that enriches quality of life.

NU ITS & NU VISION

An agile, efficient, innovative IT organization supporting critical systems and utilizing dedicated teams to empower and enable the NU vision. A strategic differentiator for NU, our IT infrastructure supports virtually every aspect of the academic and business enterprise.

The University of Nebraska will be America's preeminent public university system - a broad, diverse, and collaborative system of higher learning that leads the world in education and discovery. We will be:

- The destination of choice for students seeking an affordable, accessible, world-class education - in an inclusive, innovative learning environment that guarantees every student the opportunity to succeed.
- The world leader in making breakthrough discoveries and building the skilled workforce necessary to solve the most urgent 21st century challenges: water and food security, infectious disease, rural community development and vitality, national and cybersecurity, and early childhood education.
- The premier partners in our communities, across the nation, and around the globe in achieving the highest quality of life and economic prosperity for all.

NU ITS GUIDING PRINCIPLES

ORGANIZATIONAL VALUES

Be the Five.

Be **excellent** by exceeding expectations.

Be **champions** for our people and our partners.

Be **great listeners** who empower stakeholder needs.

Be **forward-thinking** through innovation to create solutions.

Be **trustworthy** through integrity, transparency and communication.

STRATEGIC GOALS

Services. Provide an exceptional customer experience and outstanding, responsive IT services that are consistent and reliable across all locations, well understood, and valued by our communities.

Security. Create a safe and secure environment that minimizes risk, protects privacy and data, and empowers the university community to do its work through transformative technology. Security is a part of everything we do.

Scale. Work together to achieve economies of scale so that we optimize resources, deliver on our financial commitments, and reallocate resources for emerging needs and innovation.

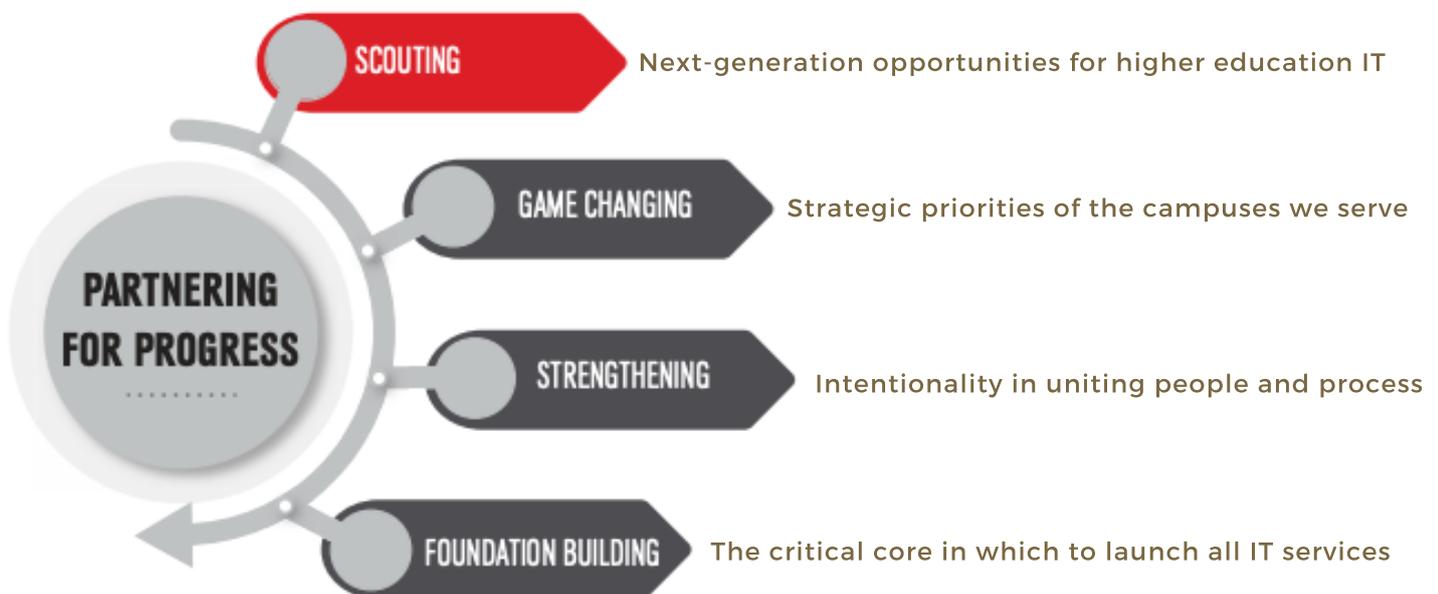
People. Commit to investing in our people so that we build an exceptional work environment with avenues for advancement and growth, and maintain an inclusive culture that embraces diversity in all forms. Empower our staff to facilitate broad collaboration and be outstanding partners to students, faculty, and staff.

Alignment. Through agility and a bias for action, support and align to what matters most in service to the University of Nebraska and the campuses we serve.

INITIATIVES & PROJECTS

A BIAS FOR ACTION

Our initiatives propel us forward, help us deliver on our strategic goals, and empower the ITS commitment to relentlessly improving our services and support. We work closely with our communities, listening in order to understand constituents' needs, always seeking to align to what matters most. We continually scout "what's next" and regularly introduce new game-changing initiatives into our organization. In addition, we strengthen services by providing exceptional customer service, all while ensuring a strong, sustainable foundation in which to base our operations. IT security remains our top priority as an organization, and we consider security to not only be a part of all of our jobs in NU ITS, but is included proactively as a critical component within all of the projects and initiatives we advance each year.



Our ITS initiatives are aligned to the framework of the University of Nebraska's Five-Year Plan, revised in August 2020. The five NU strategies are:

- Affordability, Access and Attainment
- Workforce Development
- Partnerships
- Culture, Diversity and Inclusion
- Efficiency and Effectiveness

TOP ITS PROJECTS: 2020-21

ALIGNING TO WHAT MATTERS MOST

Through ongoing and purposeful engagement with the campuses we serve, our division supports and advances a wide range of efforts each year to meet the biggest needs of our communities. Our top projects this year include:

WIRED & WIRELESS NETWORK

Our robust network project aligns all wired and wireless networking equipment across NU into a single solution. The project was made possible through extensive partnerships across NU and highlights the top goals of IT: scalability, security, increased usability, and more than \$21M in savings through standardization.

DIGITAL BACKPACK & BRIEFCASE

As the entire NU student body, faculty, and workforce went remote in Spring 2020, a clear, easy-to-understand digital remote work toolkit became of paramount importance. This work continues in 2020-21 as we streamline and simplify onboarding and access to critical IT services based on an individual's role and course enrollment.

COORDINATED RFP'S

To maximize efficiency, NU ITS has coordinated RFP's for networking equipment, workstation hardware, compute and storage, and common classroom technology. These allow ITS, as well as campus units, to buy at sharply discounted rates.

MASTER PLAN FOR IT SUSTAINABILITY

President Carter's Five-Year Plan for the University of Nebraska highlights the critical importance of developing a master plan for IT infrastructure that supports virtually every aspect of the academic and business enterprises. We can't wait to roll up our sleeves and partner on developing this plan.

OPEN EDUCATIONAL RESOURCES

Open Educational Resources (OER) and Inclusive Access Digital Course Materials programs are critical to decreasing student cost and increasing student success in coursework. Our collaborative work brings scale, reporting capabilities, transparency and infrastructure to advance OER on the campuses, seeking to save \$10M by 2023.

MULTI-FACTOR AUTHENTICATION

To minimize the risk of comprised credentials, we are expanding use of multi-factor authentication to 100% of users in the NU community.

GAME CHANGING INITIATIVES

AFFORDABILITY, ACCESS & ATTAINMENT

The value of higher education is clear and growing...Nebraskans have a basic expectation of their University: an outstanding education, at an affordable cost, where they can graduate on time and prepared for success in life and work...A "whole person" experience is what our students expect and deserve...Higher education should be accessible to all, not just a privileged few...Students come first...The best place in the country to be a student, providing high-quality, affordable, accessible education and prepares them for post-graduation success.

-University of Nebraska Five-Year Plan

ITS INITIATIVES ADVANCING THE NU FIVE-YEAR PLAN

NU ITS launched a Big Ideas process in 2019, a program in which we seek to identify strategic, transformational initiatives that will have a noticeable impact on students, faculty and staff at the campuses we serve. We began with 40 proposals in 2019-20 and selected student affordability and digital accessibility. Now in our second year of the program, over 25 proposals were submitted and we are focused on digital briefcase and backpack.

OER and Inclusive Access. Through scaling our broad support of free and reduced-cost digital course materials, we have set our sights on helping students save \$10M by 2023. This year, we will partner with Faculty Senates and Student Governments to consider strategies to add course marking capabilities, which adds critical transparency at the time of registration for students and their families.

IT Accessibility. Our work to ensure a compliant digital ecosystem that is accessible for all will leverage the network of 100+ champions of accessibility we have identified across the NU system. Focusing on systemwide training and standards, coordinated review processes, and expanded advocacy and education efforts, NU ITS will partner to ensure technology is accessible for all.

Digital Backpack and Briefcase. The remote learning and work needs of our students, faculty and staff are critical. This effort will streamline and simplify the ITS services our communities have access to, in addition to continuing to expand efficient digital alternatives for routine paper processes.

GAME CHANGING INITIATIVES

WORKFORCE DEVELOPMENT

The future of higher education will be about pathways - to college, to relevant internships and academic experiences, to timely graduation, and finally, to great jobs here in Nebraska.

- University of Nebraska Five-Year Plan

ITS INITIATIVES ADVANCING THE NU FIVE-YEAR PLAN

In addition to continuing to offer exceptional support for our standard for-credit learning management system, NU ITS is partnering to implement two additional systems that will be a critical backbone for employee development within the University of Nebraska community and also for workforce development efforts across the State of Nebraska, the region, and beyond.

NU Connect. A platform to efficiently deliver noncredit instruction, training, and continuing education offerings has been selected and will be implemented in 2020-21. This platform will not only allow us to bring together existing offerings for coordinated awareness and reporting, but will also provide a streamlined tool in which to consider additional offerings to meet growing needs of the state and region. Our ITS teams will play a critical role in supporting the system as well as building and developing content in partnership with subject matter experts across the NU system.

Bridge. A platform to effectively manage and deliver NU employee compliance training has been implemented at the University of Nebraska. Our ITS teams will continue to support this project, migrating existing trainings out of a variety of other tools, providing guidance on digital accessibility, and assisting with reporting needs, in addition to working closely with the executive sponsor to identify future opportunities to expand usage and visibility of this system.

Internships. NU ITS is cognizant that skill development, job attainment, and career advancement are important, both within our organization and within our broader field of information technology. We offer outstanding internships and student worker positions as part of our organization and will prioritize both increasing the number of these opportunities, as well as making them more visible, in 2020-21.

STRENGTHENING INITIATIVES

PARTNERSHIPS

“Nebraskans should know what to expect from their University...We must work every day to maintain the trust and confidence of the people of our state...We will focus on areas that matter to Nebraska and where we have deep expertise: water and food security; infectious disease; rural community vitality; national and cybersecurity; and early childhood education.

- University of Nebraska Five-Year Plan”

ITS INITIATIVES ADVANCING THE NU FIVE-YEAR PLAN

NU ITS has a history of service and partnership with the State of Nebraska, particularly in the areas of Infrastructure and Enterprise Resource Planning (ERP) Systems. Our teams provide the technical structure and support for Network Nebraska, which supplies internet access to public schools, libraries, educational service units, and higher education institutions across the State. We are currently in discussions to add wireless capabilities to the Network Nebraska program, providing expanded accessibility, flexibility and vitality to these rural communities.

Rural Broadband. Leverage our broad footprint as a community anchor and our expertise to expand access to affordable broadband throughout the state.

Network Nebraska. In partnership with the State Office of the CIO, operate, maintain and grow Nebraska's statewide research and education network, directly addressing the affordability of access and finding scale in shared services. As a next step in considering a wireless component via edu roam for Nebraska, we will seek to create a friction-free network of educational "hotspots" to enable students to connect into Network Nebraska at member sites throughout the state and beyond.

Transfer Nebraska. Empower the web and integration needs of the portal, which allows prospective students an avenue to input completed courses and see which will transfer, helping to increase access, save students time and money, and help students stay on the path to a degree and successful career. Our work in NU ITS will transform the site to offer a better user interface for prospective higher education students across the state.

STRENGTHENING INITIATIVES

PARTNERSHIPS

“Recognizing that we can't be successful alone, we will invest our time in cultivating partnerships that will advance our work.

- University of Nebraska Five-Year Plan”

ITS INITIATIVES ADVANCING THE NU FIVE-YEAR PLAN

We intentionally engage with our campus leaders and community to ensure alignment and opportunities to partner.

As a service entity, NU ITS partners and collaborates broadly to empower the goals and needs of students, faculty and staff across the NU campuses and community for:

- Excellence in teaching, learning and research;
- Empowering the digital transformation needs of our stakeholders;
- Commitment to customer service and outstanding communication;
- Demonstrating a bias for action, always evaluating and improving.

Supporting Excellence in Teaching, Learning and Research

- Creating a student-centric, interoperable digital learning environment with a focus on student engagement.
- Supporting high-impact practices for digital education.
- Training and support for faculty excellence in teaching with technology.
- Enabling learning analytics for real-time course decision-making and research.
- Equipping learning spaces with helpful, accessible technology to enable a variety of teaching goals and class modalities.
- Joining together through an Academic Technology Community of Practice which leverages dedicated campus-specific teams to support faculty on each campus while working together on best practices and shared tools.
- Shaping and scoping a robust environment for research data, developing consistent language for grant opportunities, and delivering a common set of computing, storage and advanced networking services to the research community.

PARTNERSHIPS

Empowering the Digital Transformation Needs of our Stakeholders:

- Advancing registration and advising systems for an enhanced student experience.
- Supporting tools that analyze critical degree pathways for students.
- Delivering on reporting needs.
- Supporting complex systems to allow for digital workflows and eForms.
- Upgrading tools for a comprehensive international student experience.
- Supporting and creating secure integrations for a wide variety of tools and needs.
- Optimizing web design platforms for enhanced content creation options for a variety of campus, departments and institutes.
- Collaborating through the Application Development Community of Practice to align to unique campus needs while working together whenever possible.

Committing to Customer Service and Outstanding Communication to our Users:

- Launching an IT customer service program for a common approach across our division.
- Increasing coordination opportunities with IT professionals serving specific units across the campuses.
- Partnering with campus Academic Affairs, Student Affairs and Business & Finance divisions to offer appropriate inventories of laptop and mobile hotspots available for checkout through ITS to students needing reliable internet connectivity and computing options.
- Investing in business relationship management practices with critical stakeholders for continual input, feedback and needs assessment.
- Introducing a twelve month IT communication master plan, including web presence at campus and system levels.

Demonstrating a Bias for Action, Always Evaluating and Improving:

- Modernizing foundational IT services to transform our ability to scale, increase our agility, and enhance our security posture to support digital transformation in all our campuses' unique missions. Key projects advancing this effort include unified network hardware replacement, HCI compute and storage implementation, and development of a NU cloud-first framework.
- Concentrating on meaningful metrics for our division that provide baseline data in which to establish growth and performance goals.
- Expanding our use of the Customer Service Indicator (CSI) ticketing survey tool, analyzing performance across divisions and setting goals accordingly.
- Conducting an annual user survey or focus group with students, faculty and staff across the campuses and system to gauge satisfaction with IT services.
- Empowering data sets and reports out of our core tools for administrative needs, which also help to inform our organization of trends and concerns.
- Establishing effective enterprise architecture, continually reviewing our services to ensure we have the right tools in place fiscally, but also those that position us well in terms of quality, security, usability and accessibility.

STRENGTHENING INITIATIVES

CULTURE, DIVERSITY & INCLUSION

Themes of equity and inclusion touch everything we do...Our people are our greatest asset...We have a bias for action in evaluating and improving our culture...Inclusive excellence must be among our highest priorities...All members of our community deserve to feel valued, welcomed and safe.

- University of Nebraska Five-Year Plan

ITS INITIATIVES ADVANCING THE NU FIVE-YEAR PLAN

NU ITS is committed to diversity, equity and inclusion, which manifests in a variety of ways throughout our multi-campus organization. One of our pillar programs, the annual Women in IT Conference, is recognized by higher education IT industry leader EDUCAUSE, who recently partnered with us in sponsoring the event, which is now in its fifth year and drawing a national audience.

- Launching an overarching NU ITS diversity, equity and inclusion plan, in close partnership with Kearney, Lincoln, Omaha and NU system inclusion leaders.
- Maintaining and extending our commitment to current employee engagement and professional development efforts, including the Women in IT Conference, our IT Allies advocacy group, our CREW program and our staff mentoring program.
- Continuing our annual ITS employee engagement survey.
- Recognizing our outstanding staff members through the Technology Excellence Award and the Rick Fredericks Awards for Outstanding Collaboration.
- Championing diversity and inclusion through the personnel hiring, onboarding and retention process. Specific projects include utilizing gender-neutral job description scanning tools to maximize diversity in candidate pools and employing inclusive hiring practices with diverse hiring committees.
- Implementing the Non-Binary Gender Values Steering Committee recommendations and Chosen Name and Gender Identity Policy, an effort that will include broad considerations for an inclusive digital "whole person" environment.

FOUNDATIONAL INITIATIVES

EFFICIENCY & EFFECTIVENESS

“ Make the best use of every dollar Nebraskans entrust to us...Launch the 'Red Tape Review' initiative...Operate with common sense and prudence...Continually look for opportunities to become leaner, more effective, and more efficient...High standard of transparency...Maximization...Sustainability goals.

- University of Nebraska Five-Year Plan ”

ITS INITIATIVES ADVANCING THE NU FIVE-YEAR PLAN

The OneIT initiative of 2017-18, where ITS teams from Kearney, Lincoln, Omaha and the NU system aligned into a single unified organization, positioned us extremely well for maximizing efficiency and effectiveness. This initiative created single IT divisions in the highly scalable areas of security, infrastructure, enterprise systems, and client services, who now serve all campuses with the same common tools and overall service approach while also leveraging campus-specific teams for academic technology and application development. Since the OneIT initiative, NU ITS has reduced \$6M in permanent state funding, eliminated a number of staff positions for efficiency and further aligned our ITS business and finance operations with those housed at the NU system. We are operating as an extremely lean, prudent organization, and one that continues to look for every opportunity to gain additional efficiency while still serving the NU community with outstanding, reliable, secure IT support and services.

Our efficiency and effectiveness efforts in 2020-21 are focused around:

- IT Security
- Infrastructure Master Plan
- Budget and Funding Models
- IT Procurement
- Service Standardization for a Truly Connected University
- Resiliency and Risk Management
- Operational Excellence - Automate, Streamline and Simplify
- Efficiency, Common Sense and Prudence

EFFICIENCY & EFFECTIVENESS

IT Security:

- Expanding use of multi-factor authentication to 100% of users and in front of all core systems utilizing single-sign-on.
- Instituting common application security practices across the NU ITS division to minimize risk.
- Increasing our end-point management and malware detection efforts by applying additional endpoint detection and response clients in partnership with faculty, staff, campus leadership and distributed IT staff supporting the colleges.
- Expanding our offering of security awareness training to 100% of campus units and migrating into the Bridge tool for enhanced visibility, assigning and tracking.

Master Plan for IT Infrastructure:

- Partnering with Business & Finance, NU Facilities, and campus and NU system administration to develop a comprehensive long-term capital master plan which includes information technology that supports virtually every aspect of the academic and business enterprises.
- Outlining a plan that addresses long-term sustainability and deferred maintenance needs of critical hardware including the network, data center and classroom technology.
- Evaluating all costs to students and limiting increases to the greatest extent possible.

IT Budget and Funding Models:

- Developing a structurally balanced ITS budget with a high standard of transparency and accountability.
- Aligning and unifying with the campuses for consistency on Student Technology Fee, Online Course Fee, and Service Centers - in the spirit of the NU Five-Year Plan's red-tape initiative.
- Advancing maturity of the ITS spending plan to a single source of authority with streamlined processes surrounding its utilization throughout our division.

IT Procurement:

- Operationalizing processes that are transparent, appropriately tiered and streamlined.
- Serving as a beta adopter to pilot efforts of the P2P procurement initiative.
- Realizing benefits of fully moving to eShop for IT purchasing.
- Maximizing our rebate earning potential through coordinated procurement processes.
- Realizing savings from our two existing coordinated system-wide RFP's: network and work station hardware. In addition, launching a third coordinated system-wide RFP for common classroom technologies in order to maximize efficiency and allow ITS, as well as campus units, to buy at sharply discounted rates.

EFFICIENCY & EFFECTIVENESS

Service Standardization for a Truly Connected University:

- Continuing to support and advance the Customer Relationship Management (CRM) System strategies of the NU system and campuses.
- Developing a comprehensive, future-looking roadmap for our Enterprise Resource Planning (ERP) Systems in place at NU.
- Advancing telephone services, including standardization of Unified Messaging platforms, call distribution, voicemail and call center solutions across the NU system.
- Increasing the number of endpoints managed by NU ITS, in addition to advancing and adopting a policy supporting this effort.

Resiliency and Risk Management:

- Migrating to the TierPoint Data Center to reduce physical, environmental, and cyber-security risks, improve the University's disaster recovery posture, and provide campus survivability in the event that connectivity is lost to University data centers.
- Refining our backup and recovery strategy and implementing new processes accordingly.
- Tiering our services in order to maximize the alignment of resources to those that are most important to the University missions.

Operational Excellence - Automate, Streamline and Simplify:

- Migrating NU Virtual Private Network (VPN) services and reconfiguring corresponding failover service on physical firewalls for greater redundancy. This will allow us to deliver enhanced security outcomes in a more integrated capacity while reducing our spent by over \$100,000 over the next four years.
- Automating bill payments and self-service for ITS financial operations.
- Providing access to bills online through ITS financial operations.
- Migrating connectivity for our outstate locations to SD-WAN solutions to increase performance, resiliency and optimization of our resources.

Efficiency, Common Sense and Prudence:

- Continually looking for ways to become leaner, more effective and more efficient as a division.
- Migrating storage tools to take advantage of a large existing contract and avoid substantial increases in vendor costs of current tool.
- Regularly assessing the utilization and reach of our key services and aligning our top spend as a division to the top utilization and areas of greatest need to the greatest extent possible.
- Providing exceptional IT project management, aligning our IT Project Management Office to the biggest, most strategic IT projects for maximum value and impact.

SCOUTING INITIATIVES

WHAT'S NEXT FOR NU ITS

As we regularly look ahead to what's next and prepare for next-generation opportunities for higher education IT, our scouting efforts are critical in order to innovate on behalf of the campuses. In 2020-21, our scouting efforts will involve defining and shaping upcoming work including:

- Next-Generation Cyber Infrastructure
- Enterprise Services Roadmap
- Digital Optimization and Transformation
- Forward-Leaning, Interoperable Teaching and Learning Environment

SOME EXAMPLES OF HOW WE WILL MEASURE SUCCESS

\$10M

saved by NU students by 2023 through our efforts to take OER and inclusive access digital course content adoption to scale



internship opportunities offered and/or coordinated by our NU ITS division that are open to all NU students

100+

champions of accessibility across the NU system, partnering to advance this critical, mission-centric work



NU ITS employee attrition as a result of our staff development programs and diversity, equity and inclusion efforts

100%

adoption of multi-factor authentication by all users and in front of all services utilizing single-sign-on

WE ARE LISTENING

STRATEGIC PLANNING WITH THE CAMPUSES

The operations and infrastructure of the University are dynamically structured, optimized, and accessible to continually build excellence and ensure a safe, sustainable, and inclusive environment. We facilitate interactions, engagement, and innovation in physical and virtual spaces and through technology for the global Nebraska community of life-long learners.

Lincoln Campus N150 Report

Learning environment matters. UNK is committed to a student-centered learning environment that embraces modern technology to enhance pedagogy and access to traditional and online programs.

Kearney Campus
Strategic Plan

We recognize the great value of the human, informational, financial, and physical assets entrusted to us and are committed to the highest levels of efficiency, effectiveness, and ethics in their deployment. Utilize technology that supports learning, effectiveness, research and innovation.

Omaha Campus
Strategic Plan

PURPOSEFUL COMMITTEE ENGAGEMENT

We value the opportunity to shape our overall service approach and specific project implementation timelines through regular, proactive engagement with student government organizations on each campus, in addition to a variety of faculty-led standing committees, including:

- Faculty Senates
- Academic Information Technology Committee (UNK Faculty Senate Subcommittee)
- Library Committee (UNK Faculty Senate Subcommittee)
- Information Technologies and Services Committee (UNL Faculty Senate Subcommittee)
- Academic Solutions Council (UNL Executive Vice Chancellor's Office)
- Academic Technologies Advisory Committee (UNL)
- Technology Resources and Services Committee (UNO Faculty Senate Appointed Committee)
- Faculty Senate Subcommittees, committee assignment varies by project (UNO)

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