

Dakota State University Master Academic Plan 2017 - 2020

Executive Summary

The Master Academic Plan for Dakota State University is the product of a group of campus volunteers who worked to create a blueprint for the future of the university. The Master Academic Plan, or MAP, as developed contains three basic sections: Tier 1, those recommendations that pertain most closely to the academic mission and priorities; Tier 2, those recommendations that pertain most closely to technological development and the evolution of the university; and Tier 3, those recommendations that pertain most closely to expansion of the planning narrative, program review, student attrition, environmental scans, and continuous quality improvement through the implementation of strategic intent. This executive summary will also point to the role and function of the Implementation Council, and the interplay between the MAP and the university strategic plan (“Excellence Through Innovation.”)

The MAP affirms the mission of Dakota State University: “DSU provides learning that integrates technology and innovation to develop graduates ready to contribute to local, national, and global prosperity.” This adaptive narrative is dependent upon institutional nimbleness, institutional innovation, and a commitment to operationalizing distinctiveness. As an institution, DSU values student success, strong and competent faculty, a meritorious curriculum, and a communicative campus network of shared governance.

Tier 1 Academic Priorities were articulated and ranked by the members of the task force. The ranked academic priorities for Dakota State University are:

1. Increased scholarship support for high achieving students.
2. Faculty retention.
3. Improvement in the 4th, 5th, and 6th year completion rates for students.
4. Increased student quality (more students with ACT scores greater than 24).
5. Over the next five years, modest growth in student enrollment (8 – 10%).
6. Over the next five years, modest growth in online student enrollment (10 – 15%).
7. Reduced adjunct and overload usage (load management and curriculum control).
8. Increased student retention, from fall-to-fall.
9. Affirmation of the undergraduate curriculum as technology rich and technology infusive.
10. Increased money for faculty development.
11. Improvement in academic advisement.

Tier 2 Priorities pertain to technology and the evolution of the university:

1. Maintenance of national security designations.
2. Expansion of the CyberCorp Scholarship program.
3. Expansion of specialized cyber education outreach, e.g., camps for pre-college individuals.
4. Increased emphasis on regional economic development, workforce development, and support for entrepreneurial work for faculty and students.
5. Development of the Madison CyberLabs (MadLabs).
6. Development of the local and regional Fifth Generation Communication Network (5G).
7. Planning, funding, and creation of the next generation library for Dakota State University.

Tier 3 Priorities pertain most closely to the planning narrative, emerging academic programs, service to the region, and the DSU planning matrix.

1. Creation, definition, and maintenance of the Academic Program Indicators (in conjunction with academic program review).
2. Proposed and emerging academic programs: Doctorate in Cyber Defense; M.S. in Security Policy; Certificate, A.S. and B.S. in Cyber Intelligence and Security; B.S. in Data Science; B.S. in Augmented Intelligence; M.S. in Cryptology; Graduate Certificate and M.S. in Digital Humanities; B.S. in Computational Biology and Computational Chemistry; B.A. in History/Philosophy/Ethics of Science & Technology; B.S. in Health and Wellness Management; and B.S. and M.S. in Sport Analytics and Athletic Leadership.
3. Integration of the MAP with the Strategic Plan, along with supplemental planning documents, i.e., enrollment, athletics, human resources, et al.
4. Execution of the plan to stem student attrition (Title III grant).
5. Presentation and integration of results from environmental scans.
6. Fully operationalize the DSU Implementation Council.

In summary, this Master Academic Plan calls for five major innovations for Dakota State University in place, optimistically, by 2020.

A. Sculpting of the student body within the university:

- Total student number to 4,000 (up from 3190 in 2016);
- Up to 50 new full-ride academic scholarships for students;
- The proportion of students with ACT scores above 24 will rise to 75% of total enrollment;
- Fall-to-fall retention will rise to 75%;
- Average success rate in high-risk gateway and major courses to 85% (up from <75%);
- Increase percent of full-time degree-seeking students completing degree within 150% (6 years) to 55% (up from 41%);
- Reduce attrition (first-time, full-time students) by 10%.

B. Cyber Operations and Programming:

- Maintain national security designations;
- Expand CyberCorp scholarships by 10%;
- Expand cyber education outreach by 10%;
- Leadership in development of 5th generation communication network.

C. Entrepreneurial Programming:

- Establish a support base for entrepreneurial support for students and workforce development through expanded internships, technology spin-offs, business planning and leadership development.

D. Faculty-staff Support:

- Build two buildings (Madison Cyber Labs and a classroom/instructional support building);
- Add 12 faculty positions, 6 staff positions and up to 9 new academic programs;
- Faculty development support dollars increased by 5%.

E. Mundt Library:

- Redesign of current space and utilization;
- Emerging library imperatives (user-centric, values based (freedom of information, ethical use of information, access), anticipating and incorporating new media and technologies, digital fluency);
- Support of faculty scholarship;
- Capital campaign for the Mundt Library.

Introduction

The viability of the baccalaureate degree, from the perspective of the student, is under fire. Students speculate that it failed to provide them enough time for hands-on learning or the space for creativity and independent thinking — the qualities most in demand by employers today.¹ Some employers agree. It is common to hear that recent hires with newly minted bachelor’s degrees were underprepared, complaints that seem to have grown louder in recent years. Some faculty have chimed in as well expressing frustration with the either/or arguments pitting liberal education against professional training that have come to define the debates over curricular reform efforts.

At Dakota State University, given our mission, history and volition, we may through these sorts of planning efforts, be able to lead the nation in preparing students for a future where technology, concurrent enrollment, and a plethora of new challenges² call for wholesale reform of the baccalaureate degree. While DSU will remain reluctant to change the inner workings of the bachelor’s degree, not being sure exactly what part of its complex formula leads to success, we know that flexible and proactive planning is increasingly important as we now work in a world where accelerated change is a constant and where opportunities and challenges present themselves to us daily.

This Master Academic Plan is a working document, using information gleaned from the university planning narrative; departmental plans; an environmental scan of career-related and demographic information encompassing the local, regional, national, and international community; and futurists literature from a variety of individuals, books, and professional organizations. The Master Academic Plan serves as the guiding document for decision-making and planning in academic areas at Dakota State University for the next five years. However, we know that this plan is a working document that will be revisited regularly, and will be revised, as changes around us dictate that necessity.

The Master Academic Plan provides a flexible overall framework for the development of specific college and department plans and for academic initiatives that reflect those plans. In this way, the MAP guides academic development at the university and connects current planning efforts to those that have gone before, including the University Strategic Plan. Goals found in the plan are broad-based in most cases, which allows for creation of initiatives and specific actions that will help us know if we are meeting those goals. The MAP goals are meant to be directional, aspirational, and broad enough to allow flexibility in how we achieve those goals.

The “New Normal”

Seventy four percent of undergraduate college students have at least one “nontraditional” characteristic.³ For example, 66% transfer between institutions prior to graduation, 62% work either full or part-time, 43% attend part-time, 28% have at least one dependent, 35% are enrolled in two year colleges and 63% are first-generation students. Because of the “way things are,” college students today have a different set

¹ Jeffrey J. Selingo “Rebuilding the Bachelor’s Degree.” *Chronicle of Higher Education*, APRIL 13, 2016

² SPECIAL REPORT from *Chronicle of Higher Education*, FEBRUARY 29, 2016, “The Trends Report: 10 Key Shifts in Higher Education.”

³ National Center for Education Statistics. (2015). Demographic and enrollment characteristics of nontraditional undergraduates: 2011-12. Retrieved from <http://nces.ed.gov/pubs2015/2015025.pdf>.

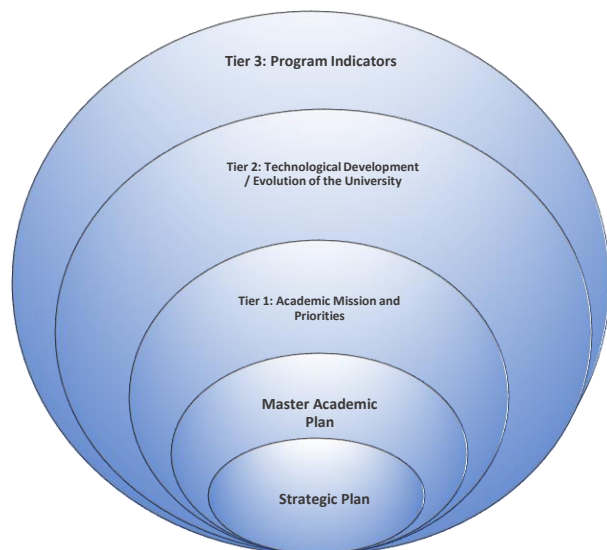
of needs including flexibility because they likely are working or have families, they often need access to non-academic services such as childcare, they may need flexible schedules, including courses they can complete at their own pace, faster or slower, depending on their obligations. Today’s college students may profit from modularized content where they can work in short bursts of study such as during lunch hours or work breaks, and/or these students may be looking for different ways to demonstrate their new competencies, such as credit for prior learning from workforce or military experiences. Most importantly, these modern students are likely to need support for navigating unfamiliar systems and institutional processes.⁴

There are several implications for Dakota State University and our academic planning processes. First, there is nothing more important at our university than the success of our students. This success can be noted in terms of completion and outcomes, both student learning outcomes and post-completion success. We must continue to refine assessment tools and develop new instruments that measure learning. Second, we must focus innovation on what matters: ensuring all students have affordable and equitable access to learning experiences. Technology may be one of the keys to opening this potential. Third, we must continue to make sure students have access to high-quality learning opportunities. Fourth, the development of digital or open educational resources, a strength of DSU, will help guarantee affordability for our students.

The DSU Planning Narrative

The planning narrative is based on the DSU Strategic Plan, *Excellence Through Innovation*, a five-year plan containing Mission, Vision, and Values statements, expressed as four university goals that drive fifteen initiatives. In turn, each of these initiatives are populated with specific performance indicators with Baseline (2014), Target (2020) and data source information.

Figure 1: Dakota State University Master Academic Planning Narrative



The planning narrative moves from the strategic plan, adding the Master Academic Plan, adding the richness inherent to several AQIP Action Projects, adding emphasis points that sharpen the path (Athletics Master Plan, Enrollment Master Plan, Technology Master Plan, Advancement Master Plan, Facilities

⁴ U.S. Department of Education, Office of Educational Technology. “Reimagining the Role of Technology in Higher Education: A Supplement to the National Education Technology Plan.” January 2017.

Master Plan, and the Fiscal Master Plan). These elements come together to move us to 2020: An Excellent, Innovative and Sustainable enterprise that has four evolutionary intended outcomes: (1) student success on multiple levels, (2) the ability to recruit and retain talent (faculty, staff and students), (3) regional and national relevance, and (4) fiscal sustainability.

Figure 2: Dakota State University Planning Matrix



Expectations for the Master Academic Plan

We see the Master Academic Plan (MAP) as aspirational, seeking to awaken in all of us a desire or ambition to elevate DSU's performance, dreams, or goals (Merriam-Webster puts it well: "the action or power of moving the intellect or emotions"). To be aspirational with our planning means that we seek to achieve something greater than the current level of achievement. In that process, we recognize that everything we do is important, but not everything is a priority. Consequently, within this document there will be priorities created. In addition, we seek to make the MAP a living document, providing baseline information, and being adjustable over time.

As a campus, we are committed to data-driven decision making and to the existence of a fully functional **Implementation Council**, responsible for transforming planning into substance and targets into reality. The MAP will guide academic decisions including support for academic programs, e.g., budget, facilities, and other resources. The MAP will help us decide where we want to be, what will make us distinctive and competitive into the future, and how we get there. Through the Implementation Council, the MAP will inform other planning processes and will help drive quality improvement processes for the university.

The Master Academic Plan recognizes and reaffirms the value of faculty guidance and input in decision-making and resource allocation in instructional areas of the university. The members of the taskforce see the MAP as a core component of robust, integrated university strategic planning process, linking vision, priorities, people, services, resources, and the physical institution in a flexible process of evaluation, decision-making, and action. Finally, the members of the taskforce see the MAP as providing a means for monitoring and reporting academic progress as well as a means for updating and revising our curriculum to meet changing circumstances.

Tier 1: Academic Mission and Priorities

The Academic Mission of Dakota State University

The members of the taskforce spent time discussing mission of the university in the context of academic priorities. The mission of the university, as stated in the strategic plan (Excellence Through Innovation) is, “*DSU provides learning that integrates technology and innovation to develop graduates ready to contribute to local, national, and global prosperity.*” The taskforce offers the following mission-related items as priorities for the campus (the Implementation Council, the President’s Cabinet, and others): The academic mission of Dakota State University must be an adaptive narrative built on institutional nimbleness, innovation, and a commitment to teach our constituents how to use technology in positive, adaptive, and interactive ways and to leave the university as educated persons. At the core of our academic mission is the need to operationalize our distinctiveness: we do not build technology, but we teach people how to use technology. We do not create people, but we teach people how to interact positively with the world. It is a “story” of integration.

Values

In the university strategic plan, the following are listed as shared fundamental values of the university: Student Success, University-wide Excellence, Distinction in Teaching, Scholarship, and Service, Academic Freedom and Integrity, Diversity, Respect and Inclusion, Continuous Improvement, Community, Collaboration and Communication, Technology Infusion, and Innovation inside and outside the classroom. The academic enterprise mirrors these institutional values and states, specifically, the following shared fundamental values for the academic side of the university: (1) We value student success and competence; (2) We value strong and competent faculty; (3) We value a meritorious curriculum designed to maximize student outcomes; and (4) we value a communicative and effective campus network of shared governance.

Academic Priorities

The members of the MAP taskforce undertook the task of identifying academic priorities and then through a voting process, rank ordered these priorities. The members of the taskforce developed a list of 26 academic initiatives (this list can be found in the Resources section at the end of this academic plan). The members worked to clarify the language of each of these potential initiatives, developing the list contained in the endnotes of this report. It was decided to vote on the priorities so a voting process using Qualtrics was developed and the voting process (consisting of three rounds) began on December 7, 2016 after a retreat for the MAP Task Force. These priorities are shown in the following table:

Table 1: MAP Task Force Academic Priorities

Priority	Item	Financial Need
Priority 1a	Increase scholarship support for high-performing students	\$1,700,000
Priority 1b	Retention of highly-qualified faculty	\$500,000
Priority 2	Six-year graduation rate rise to 50%	\$250,000
Priority 3	First-time, full-time students with an ACT of 24 or higher will increase by 2022	
Priority 4a	Student credit hour growth	Accounted for in Tier 2
Priority 4b	Online, off-campus credit hour growth	Accounted for in Tier 2
Priority 4c	Refinement of teaching overload definition and management	
Priority 5a	Fall-to-fall retention increases to 75%	\$130,000 (1 FTE)
Priority 5b	Technology-rich nature of undergraduate curriculum will persist and grow	Accounted for in Tier 2
Priority 6a	Increase of 2% of faculty development support (instructional/professional development and training)	\$152,000
Priority 6b	Academic Advisement Improvement	Accounted for in Tier 2
Total		\$2,732,000

Strategies for Priority 1a and Priority 3

Increased scholarships that will attract higher performing students requires dollars generated in three ways: endowed scholarships, discounted tuition, or annual fund giving. The magnitude of giving needed for a full-ride scholarship (15 credits per semester, for 8 semesters, for 50 SD resident students) would require a scholarship pool of approximately \$1.7M. Using just the endowed scholarship method, assuming an 8% annual return, an endowment of \$22,000,000 is needed for this level of support.

Strategies for Priority 1b

A faculty retention effort will require the development of flexible and accommodating policies and practices that can improve the experience of faculty and help with retention. For example, create the faculty sabbatical, provide a workload that is comparable, competitive, and attractive, and essentially, end the practice of overloads (see 4c), development/support (start-up/pilot funds, training, core equipment, mentoring), faculty-driven AQIP action projects, teaching load is two semesters of the three (fall, spring, summer) per fiscal year, gather information from faculty and exit interviews with faculty who are leaving

to identify and classify factors in retention, and increase recognition of important faculty contributions in all areas including teaching, advising, research and creative activities, and service.

Strategies for Priority 2, Priority 5a, and Priority 6b

Strategies for accomplishing these priorities include expanded academic advising services (a step that is included in the current Title III funded project), a structured and systematic program to work with undecided (and also re-deciding) students, success coaching, creating a writing center with expanded tutoring services, special programming for first generation and Pell grant recipient students, and expanded opportunities for high-achieving students.

Strategies for Priority 4a and Priority 4b

Enrollment challenges are likely to persist as WICHE reports flat high school graduate projections. Given these observations, growing the university requires several clear strategies. For example, doing an assessment of our website's overall health, content, and ease of use is important as is making sure we use social media to showcase our brand, personality and unique content to prospective students. Consistent and continual implementation of the principles of continuous quality improvement will help growth. For example, we must engage in a continuous process of "measure and improve." The roles of analytics and tracking as integral components of marketing cannot be over emphasized.

In addition, we might try to connect first-year students to their end goals, i.e. career development assistance for lower division students. While we have reviewed our trendlines for term-to-term persistence as well as year-to-year retention for several years, we now need to review our benchmarks and propose strategies for resolving student hindrances to completion. The Academic Program Indicators (see Tier 3) are designed to do this sort of analysis. We should think about expanding our academic recovery programs to low-performing students even if they are not on probation. This could also include "attrition triggers" to engage students in meaningful, problem-solving conversations to keep them at DSU.

Strategies for Priority 5b

To keep DSU on track with its unique product, mission and niche, we must do several things. First, DSU must not become a victim of its own success. As we accomplish more and more, we cannot listen to all proposed opportunities to reshape our primary identity. Second, we must be careful about blindly following the expectations of external regulatory bodies and funders. Third, we must continue to do a good job of describing our primary identity and mission. This is especially challenging in times like ours when deep trends are shifting the tectonic plates of our culture and our world. Finally, we need to avoid traditionalism rather than tradition (a dead versus living orientation) and we must avoid defining ourselves by what we are not.

Ancillary Priorities

As with any discussion about priorities of a large enterprise, discussions by the Task Force netted more ideas that were worth consideration, but did not get full attention for discussion. Below are four such items:

Health and Medical Science Programs across Lifespan Human Development

The planning taskforce suggests a university exploration of academic programs focused on health, fitness, and fitness development as an emerging priority. For example, the taskforce is suggesting examining an online or blended health and wellness management program designed to prepare students for careers in

developing and managing wellness programs in a variety of settings, public and private, from healthcare systems and insurance companies to educational institutions, manufacturers, service and retail industries or community agencies. More specifically to help meet the region's growing health-care needs, Dakota State University should be prepared to train more health-care professionals in areas like health-information technology, health coaching, and patient navigation.

Graduate Programs

There are specific planning elements within the understanding of the place of graduate programs at Dakota State University. The obvious planning goals include promoting academic excellence, advocating on behalf of our graduate students, and fostering community across all graduate programs. In addition, we need to provide strategic planning and vision for graduate education at DSU, making sure our programs reflect the strategic intent of the university, as well as maintaining policies and standards that define good practice in all graduate programs.

The Virtual Lab

The focus here will be creating more access to the virtual lab for all students, online and on-campus. Advancing that skillset is our niche in the market and should be advanced with data analysis/mining with SQL, SAS, or SPSS and integrating data visualization with Tableau or business intelligence tools. With big data, all majors would benefit by utilizing a warehouse of data.

Academic Facilities

There is sentiment out there that academic facilities make a difference in student selection of university and major as well as school reputation. For example, in a report by the Association of Higher Education Facilities Officers shows that some students reject colleges if certain facilities are unavailable or if buildings are poorly maintained. In their survey, the following facilities were deemed "extremely important" or "very important" when they were selecting a college: Facilities for major: 73.6 percent; library: 53.6 percent; sophisticated technology: 50.9 percent, classrooms: 49.8 percent, residence halls: 42.2 percent, and exercise facilities: 35.6 percent.⁵ DSU must understand the planning implications of these findings.

Tier 1 Intent: Coordination with Assessment of Strategic Planning

To increase awareness of strategic efforts across campus and the measurements therein, the institution will coordinate Tier 1 intentions through the agreed-upon tracking and communication mechanism: Achieveit (www.Achieveit.com). In the following dialogue box are the intended outcomes for Tier 1 MAP activities paired with relevant pillars of the overall university strategic plan, suitable for insertion into Achieveit. This facilitates a campus culture that more easily promotes transparent decision-making, effective communication, and a shared governance campus environment.

Table 2: Tier 1 Intended Outcomes Linked to Strategic Plan

Tier 1 Intended Outcomes Matched to the Strategic Plan		
Intended Outcome	Pillar from Strategic Plan	Initiative within Plan Pillar
1. . . . to increase scholarships for high performing students	Grow to Thrive	Initiative 1

⁵ <http://www.facilitiesnet.com/educationalfacilities/article/Reports-Target-Facilities8217-Role-in-Higher-Education--6035>.

		Initiative 2
2. . . . to increase faculty retention	Innovate to Transform	Initiative 3
3. . . . to increase the 4, 5 and 6-year student completion rates	Grow to Thrive	Initiative 1
4. . . . to increase the number of highly qualified students (ACT > 24) enrolled	Grow to Thrive	Initiative 1
5. . . . to grow student numbers enrolled (general population) and to grow students enrolled online	Grow to Thrive	Initiative 1
6. . . . to clarify and make consistent teaching loads across campus	Innovate to Transform	Initiative 3
7. . . . to increase fall-to-fall student retention	Grow to Thrive	Initiative 1
8. . . . to affirm the technology mission of the university	Educate to Inspire	Initiative 1
9. . . . to increase financial support for faculty development activities	Collaborate to Lead	Initiative 1
10. . . . to improve structural support and logistics for academic advising	Grow to Thrive	Initiative 4
11. . . . to create the DSU Virtual Lab	Educate to Inspire	Initiative 4

Tier 2: Technological Development and the Evolution of the University

Online Education at Dakota State University

The proliferation of online education programs creates many challenges for implementation and delivery of these programs. Among the challenges in providing for this academic expression is leadership in securing the necessary resources, developing the organizational structures, and influencing organizational culture. The foundation for a successful outcome when implementing online education programs is the role of leadership in providing adequate and appropriate support.

Two sets of planning issues emerge⁶ when creating a plan for online education. First, there are the development functions. Included here are program policies, staff development, faculty incentives, a faculty mentoring program, a course management system, and online test security. Second, there are the maintenance functions. Included here are evaluation of online technology, assessment of course content,

⁶ Amanda C. Barefield, and John D. Meyer, Leadership's Role in Support of Online Academic Programs: Implementing an Administrative Support Matrix, *Perspect Health Inf Manag.* 2013 Winter; 10(Winter): 1f. Published online 2013 Jan 1.

faculty and student feedback in a systematic fashion, and making data-driven decisions that improve our work based on faculty and student input.

National Security Designations as part of DSU's Academic Plan

Dakota State University has four National Security Agency (NSA) and Department of Homeland Security (DHS) Academic Center of Excellence Designations. The university recently received notice that the National Security Agency and the Department of Homeland Security designated Dakota State University as a National Center of Academic Excellence in Cyber Defense Research (CAE-R) through academic year 2022. Also, the university received notice that the National Security Agency and the Department of Homeland Security designated Dakota State University as a National Center of Academic Excellence in Cyber Defense Education (CAE-E) through academic year 2022. The National Centers of Academic Excellence in Cyber Defense (CAE-CD) program is a jointly sponsored program by the NSA and the DHS. The goal of the program is to reduce vulnerability in our national information infrastructure by promoting higher education and research in cyber defense and producing professionals with cyber defense expertise for the nation. Specifically, DSU was recently re-designated as a National Center of Academic Center of Excellence for Cyber Operations (the most technical of the designations) through academic year 2022. Dakota State University has also been named a Cyber Defense Consultative Regional Resource Center (CRRC), one of four in the nation. As a Regional Resource Center, Dakota State collaborates with the national hub resource centers to ensure any unique higher education requirements for university programs and applicants are addressed. DSU is a Center for Excellence for Information Assurance Education, and a Center for Excellence for Information Assurance Research. In addition, Dakota State is the only university in the country selected by the National Security Agency National Cryptologic School for NSA military and civilian employees to complete their bachelor's or graduate degrees in cyber operations.

These designations are fundamental to our academic mission in several ways. First, the designations provide qualitative enhancement to the coursework students complete at DSU. Second, these designations provide additional evidence of competence for students leading to higher levels of job marketability and employability. As such, institutional maintenance of these designations is an important part of the academic agenda here at Dakota State University.

CyberCorp Scholarship Program

Another important academic enhancement for DSU students is the fact that Dakota State is home to the nation's largest cohort of National Science Foundation (NSF) CyberCorp scholarships for service recipients. This program is part of a broad, coordinated federal strategic plan for cybersecurity research and education to "change the game," check the misuses of cyber technology, bolster education and training in cybersecurity, establish a science of cybersecurity, and transition promising cybersecurity research into practice. As such, DSU's program is designed to assist in developing an innovative and efficient cybersecurity education system that results in an unrivaled cybersecurity workforce and citizenry capable of advancing America's economic prosperity and national security in the 21st century. Obviously, this is an important element of academic intent on this campus.

Specialized Educational Outreach in Cyber Education

Dakota State University has the largest National Science Foundation GenCyber camps for middle school and high school teachers in the nation. For example, in 2016, this initiative brought to campus 50 teachers

for a teacher's camp; 140 students in a girls-only camp, and more than 400 students in two co-ed camps. These specialized outreach programs serve as powerful recruiters for future DSU students while providing an essential service function within cyber education in the Midwest region.

Economic Development, Workforce Development, and DSU's Role as a Transformative Force in the Region

We believe, and we are committed to the fact, that cyber education is a transformative force for South Dakota. Being on the leading edge of technological advances within an academic setting, Dakota State University is becoming proficient at creating new economic opportunities and jobs for South Dakota and the region. For example, there are currently about 300,000 unfilled cybersecurity jobs in the U.S. with projections for the need for hundreds of thousands more in the next few years. Many of these jobs can be done from anywhere in the country if workers have the academic preparation and technical skills. More specifically, our region, the center of the U.S., is severely underserved by cybersecurity companies as most companies are on either the east or west coast.

Estimates in the professional literature suggest that every single IT job creates five other jobs in the area, and the investment in these sorts of programs and students, by a university like Dakota State, will have comprehensive economic impacts. For those reasons, cyber programs must stay prominent in the academic mission of DSU. We see Dakota State University evolving as a regional academic and economic cluster, feeding important innovation-rich opportunities.

Entrepreneurial Development

“Entrepreneurship is a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Essential ingredients include the willingness to take calculated risks in terms of time, equity, or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; fundamental skills of building solid business plans; and finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion.”⁷

Within this academic planning document, the taskforce seeks to underscore the fact that demand has surged for interdisciplinary, entrepreneurial curricula that explore critical issues in education. As an academic set of goals, the task force sees several important strengths in providing this opportunity for students: (1) an understanding of the interdisciplinary perspective, (2) an understanding of various available research methods and tools, (3) an understanding of the importance of a customer-centric solution that addresses a problem that exists in the current marketplace, (4) an understanding of the legal issues in entrepreneurship, and (5) an understanding of marketing strategies for entrepreneurs.

In response to this demand, Dakota State University will seek to accomplish two main things: (1) increased emphasis and academic study to include degree programs in education entrepreneurship and (2) create a cadre of emerging entrepreneurs possessing the knowledge and skills to conceptualize, create and manage successful ventures, launch new products and start new businesses. This will be accomplished through developing space for creators and thinkers who need support to gather and develop these entrepreneurial activities.

⁷ Kuratko, D.F. & Hodgetts, R.M. 2004. *Entrepreneurship: Theory, Process, Practice* (Mason, OH; South-Western Publishers).

Dakota State University and the Madison Cyber Labs (MadLabs)

The MadLabs will build on DSU's expanding academic and technological strengths to establish a hub of cybersecurity and cyber operations expertise, education, applied research and economic development. As important extensions of the academic programs of Dakota State University, the MadLabs will require a high availability research network. We launched MadLabs recently with the grant-supported (SD Board of Regents and the National Security Agency) project called the Cyclops Lab (The Cyber Classified Operations Lab). The Patriot Lab (protection and Threat Research for the Internet of Things) has the very specific focus on issues of cybersecurity related to network connectivity of devices (many home-based devices, autonomous vehicles, ag machinery, health technology and equipment). The BaSe Lab, banking security research cluster, will address cybersecurity issues of the financial sector, especially as related to secure transactions and account protection.

Another intended MadLab is the CLASSICS Institute (Collaborations for Liberty and Security Strategies for Integrity in a Cyber-Enabled Society). This lab will be addressing issues related to ethics, philosophy, privacy and liberty in a connected global society. DigiForce (Digital Forensics for Cyber Enforcement) is dedicated to addressing digital criminal activity, potential and actual. The CybHER Security Institute addresses the expansion of cyber careers for women, middle school, and high school girls. We are interested in expanding the potential for the development of significant capabilities by women to fill the serious workforce demands for cyber professionals. Other intended Madlabs include the Campus IT Living Lab (our IT infrastructure protection and related research and development), the AdapT Lab (focusing on adaptive and assistive technologies) the Center for Advancement of Health IT (CAHIT), Institute for Technology and Learning (ITL), and a Madlab from the College of Business and Information Systems.

South Dakota 5th Generation Networking

Part of DSU's future in computing and telecommunications networking, is ongoing planning and work to move DSU and the Madison community to the 5th generation with the goal of complete and limitless wireless communication, to provide connectivity not only to computers and cell phones, but to yet-to-be identified devices on the internet of things (IOT). Part of this master academic plan is to implement a leading-edge 5G network for the DSU campus and then extend that network to the city of Madison, Lake County, and eventually to the state of South Dakota.

Role and Scope of the Library

There are two main reasons that libraries are changing: the shift to digital technology, and the changing student population. Many of today's college students are part of Generation Y, born in or after 1982. This generation is also referred to as the Net Generation, The Digital Generation, the Echo Boom Generation, or the Millennials.⁸ These students are academically ambitious, and the top reasons they visit the library are related to academic achievement. The planning challenge for Dakota State University is a combination of expectations: these students expect customization, they are technology veterans, and they utilize new communication modes.

⁸ Gardner, S. & Eng, S. (2005). What Students Want: Generation Y and the Changing Function of the Academic Library. Libraries and the Academy, 5(3), pp 405-420. The John Hopkins University Press. doi:10.1353/pla.2005.0034

In looking to 2020 and beyond, the Mundt Library planning will evolve around five specific planning imperatives. First, the library and the library staff will actively anticipate and incorporate new media and new technologies including the internet of things and augmented intelligence. Second, in terms of physical space the library will work toward developing a more “user-centric design” (facilitating learning support and learner productivity). Third, the Mundt Library is a values-based organization emphasizing the freedom of information, privacy and confidentiality, ethical use of information and access to all learners. Fourth, the library and the library staff emphasize digital fluency (which refers to digital citizenship, digital rights and responsibilities, and mastery of the responsible use of technology). Lastly, and most important of all, the Mundt Library is a learning organization. Conversations are being planned around the notion of a Capital Campaign for the Mundt Library.

Center for Interdisciplinary Programs

The Center for Interdisciplinary Programs (CIP) is a catalyst for innovation and experimentation for both faculty and students across disciplines to nurture and cultivate a wide-range of teaching and programs consistent with the curriculum at Dakota State University. The CIP provides a home for the Dakota State version of “design your own curriculum” or General Studies, as well as a home for other interdisciplinary academic programs. Philosophically, the center promotes interdisciplinary and multidisciplinary teaching and research and is an integral part of a DSU education.

Presently, the primary interdisciplinary program at DSU is the General Studies program. This degree program is intended to accommodate students with a variety of career goals. It is an important option for students who have accumulated significant college credit and who want to complete a baccalaureate degree. But, it is also a viable choice for students who are interested in building their own degree program, to coincide with their career plans and interests. Students are required to complete general education requirements plus 45 credits in three areas of emphasis (15 credits in each area) selected by the student from these disciplines: allied health, business, education, fine arts, humanities, social sciences, wellness, technology and other STEM disciplines (science, engineering, math). Specific coursework in the three areas of emphasis is selected by the student; additional credits for graduation can be selected from any discipline. Administratively, the Council of Deans will administer General Education and other new and emerging interdisciplinary majors.

Financial Implications of Tier 2

An exact estimate of the financial costs of implementation of Tier 2 programming is speculative, at best, but the following table suggests a possible scenario.

Table 3: Financial Implications of Tier 2 Activities

Planning Element	Costs for Faculty	Support Staff	Facilities
Online Education and other technological pedagogy		\$150,000 (2 FTE) \$200,000 (2 FTE) in course design	
NSA Designations			

CyberCorp Scholarships			
Economic Development			
Entrepreneurial Development	\$260,000 (2 FTE)		
MadLabs			\$18,000,000
5G Network			\$500,000
Library		\$100,000 (1 FTE)	
Classroom/Faculty Building			\$7,500,000
Subtotals	\$260,000	\$450,000	\$26,000,000
Total for Tier 2		\$26,710,000	

Tier 2 Intent: Coordination with Assessment of Strategic Planning

To increase awareness of strategic efforts across campus and the measurements therein, the institution will coordinate Tier 2 intentions through the agreed-upon tracking and communication mechanism: Achieveit (www.Achieveit.com). In the following dialogue box intended outcomes for Tier 2 MAP activities are paired with relevant pillars of the overall university strategic plan, suitable for insertion into Achieveit, leading to a campus culture that more easily promotes transparent decision-making, more easily facilitates effective communication, and more probably creating a shared governance campus environment. These interrelationships and goal achievement processes will be led and managed by members of the Implementation Council of Dakota State University.

Table 4: Tier 2 Intended Outcomes Matched to the Strategic Plan

Intended Outcome	Pillar from Strategic Plan	Initiative within Plan Pillar
1. . . . to continue curricular development of academic programs that reflect (four new academic programs in next four years)	Educate to Inspire	Initiative 1
		Initiative 2
		Initiative 4
2. . . . to provide financial support (faculty) for emerging, mission consistent, academic programs (six to eight new faculty positions)	Educate to Inspire	Initiative 1
3. . . . to provide financial support (staff) for emerging, mission consistent academic programs (6 positions)	Educate to Inspire	Initiative 1

4. . . . to engage the appropriate processes to secure three new facilities: a Madison Cyber Lab (MadLab) building, a classroom and office building, and infrastructure for a 5G communication network in the Madison region	Grow to Thrive	Initiative 4
5. . . . to create a “proposed academic program” intent document that highlights the matrix of ideas: interdisciplinary, entrepreneurial, and rigorous	Educate to Inspire	Initiative 5
6. . . . to articulate a cohesive and forward looking “Sioux Falls Agenda” for DSU	Educate to Inspire	Initiative 1
7. . . . make effective use of “post-doc” individuals who can be a teaching resource for DSU	Educate to Inspire	Initiative 1
8. . . . to articulate and place a comprehensive academic honors program for high achieving students at DSU	Innovate to Transform	Initiative 4
9. . . . to create and execute a plan for the transformation of the library into a 21 st century student/learning support center for on-campus and on-line students	Grow to Thrive	Initiative 4
10. . . . to create and establish the Madison Cyber Lab	Educate to Inspire	Initiative 2
11. . . . to create and establish the South Dakota 5th Generation Communication Network to support our work with the Internet of Things (IoT)	Educate to Inspire	Initiative 4
12. . . . to establish DSU as a potent force in economic development and workforce development	Collaborate to Lead	Initiative 1
13. . . . to maintain national security designations, the CyberCorp Scholarship Program, and CAE-CyberOps as part of DSU’s academic plan	Collaborate to Lead	Initiative 2

Tier 3 Strategies: Internal Plan Elements

The Academic Program Indicators (API)

The Academic Program Indicator system was developed by a sub-committee of the Task Force led by the DSU Institutional Research Office and the Institutional Effectiveness and Assessment Office. This collection of data provides a baseline that, when used over time, will be instrumental in determining on a program-by-program basis, important elements like financial cost for each program, degrees awarded, change in size of the program (number of majors), section size and job growth potential.

Program Indicators Driving the Program

Five indicators form the assumptions driving the API. These indicators are (1) Cost Calculation Percentage (the tuition generated by each section divided by the faculty salary cost to teach that section); (2) Declared Majors Percentage (the number of students enrolled in each major as of fall census);

(3) Degrees Awarded Percentage (total number of graduates by program); (4) Section Size Percentage (section size by program for undergraduate (upper and lower division) and graduate level sections); and (5) Job Growth Percentage (data about job growth, by area, utilizing Bureau of Labor Statistics).

Dashboards Available for the Academic Program Indicators

The Academic Program Indicators report makes available several useful dashboards. The dashboards include: (1) Cost Calculations (department and program level), (2) Declared majors, (3) Average section size, (4) Number of degrees awarded by year, (5) Percent growth in job outlook, (6) Percent of online enrollment, (7) Fourth, fifth, and six-year graduation rates, (8) Percent of incoming students with prior credit, and (9) Percent of degree-seeking students enrolled in remedial courses.

Suggestions on Uses for the Academic Program Indicators Report

The reader will find the data tables in the Resource section: nine graduate programs, seven associate degree programs, sixteen certificate programs, and twenty-eight undergraduate programs.

The taskforce is recommending three intended outcomes for the report data: (1) a need for a repository for *longitudinal data*, leading to the development of a (2) *planning profile summary* webpage on the Provost's site containing detailed academic program data and support information, and ultimately leading to (3) the creation of a university *academic metrics toolbox*. These features will provide transparency, accountability, and perspectives around which the planning work can occur.

Emerging and Potential Programs and Perspectives

Below are philosophical underpinnings for programs currently being considered for potential development at DSU.

Doctorate in Cyber Defense

This program is a natural extension of our current offerings and provides another opportunity for immersion in an expanding field. This would bring in 10-15 additional students.

Masters in Security Policy

This program would add an additional 75 to 100 students and is conceived as an online program.

AS and BS in Cyber Intelligence and Security (Interdisciplinary)

This program is an interdisciplinary effort from the College of Computing and the College of Arts and Sciences. The potential here is for 150 to 200 additional students.

Data Science

Known also as data-driven science, Data Science is an interdisciplinary field about scientific methods, processes and systems to extract knowledge or insights from data in various forms, either structured or unstructured, similar to Knowledge Discovery in Databases.

Augmented Intelligence

This degree pattern is also referred to as cognitive augmentation and machine augmented intelligence. It refers to the effective use of information technology in augmenting human intelligence. The idea was first proposed in the 1950s and 1960s by cybernetics and early computer pioneers.

Cryptology

Cryptography or cryptology is the practice and study of techniques for secure communication in the presence of third parties called intruders or adversaries. More specifically, it is the mathematics, such as number theory, and the application of formulas and algorithms, that underpin cryptography.

Computational Biology

Computational biology, sometimes referred to as bioinformatics, is the science of using biological data to develop algorithms and relations among various biological systems. Prior to the advent of computational biology, biologists did not have access to large amounts of data.

Computational Chemistry

This is a branch of chemistry that uses computer simulation to assist in solving chemical problems. It uses methods of theoretical chemistry, incorporated into efficient computer programs, to calculate the structures and properties of molecules and solids.

History and Philosophy of Science and Technology

These programs teach students to examine the sciences, medicine and technology from myriad perspectives, conceptual, historical and social. Academically, this program is a collaborative enterprise of the Departments of History and Philosophy.

Campus-wide Honors Program

There are several strategic questions related to the honors program on the DSU campus: (a) the expansion of the General Beadle Honors Program to a campus-wide model; (b) recruitment to the honors program; (c) funding and support for the program; (d) elements of the program, curriculum, commencement, and (e) creating an honors program that reflects well on DSU and helps us recruit and retain top-tier students.

Service to the Region

Part of the academic agenda for Dakota State is to understand future relationships with online education, off-site urban programming (Sioux Falls), and the non-credit/certificate model of educational delivery. There are two or three specific elements to an active agenda in the state's largest city. For example, there is University Center-Sioux Falls where students can complete or begin a degree with one of the South Dakota Regental Universities, and serves students who are returning to college or students beginning their career. The University Center offers day and night classes.

Another dimension of the Sioux Falls agenda is Southeast Technical Institute which is designed to offer technical education opportunities as one of four state-supported post-secondary technical institutes in South Dakota. Southeast Tech grants associate of applied science degrees, diplomas, and certificates upon successful completion of individual program requirements.

Expansion of the Planning Narrative

There are three very necessary planning imperatives. First, with the movement toward adoption of the pieces of this master academic plan, we will need to generate an understanding of the impact of program growth. Specifically, this means the development of an Enrollment Master Plan, which describes the potential growth of new programming, which in turn generates the Cost and Revenue Plan for the university. It is at that point that the planning narrative for Dakota State University becomes a circular and recursive pattern of continuous quality improvement. A recursive element is defined as when the thing

being defined occurs as part of its own definition. The distinction between a recursive and a circular planning narrative is that any recursive planning function has a noncircular part, or basis. With the maturation of the planning narrative we feel confident that DSU will produce the four evolutionary intended outcomes: (1) student success on multiple levels, (2) fiscal sustainability, (3) regional and national relevance, and (4) the ability to recruit and retain talent (faculty, staff and students).

Individualized Support to Stem Student Attrition

In fall 2016 DSU received a Department of Education Title III Strengthening Institutions grant. The budget for the life of the project will total \$2,247,960 across five years of work (approximately \$449,000 per year).

With this grant, DSU seeks to complete three major goals in regard to reducing student attrition. First, we seek to increase academic success in high-risk gateway and majors courses. Specifically this means that by Fall 2021, we will increase the average success rate in high-risk gateway and majors courses to at least 85%. (Baseline: Fall 2014 = 19 courses with less than 75% of students completing with a C or higher). By Fall 2021, increase first-year to second-year student retention to at least 75% with more frequent individualized academic support. (Baseline: Fall 2014 retention = 64.9%). Second, we seek to increase student timely degree completion with individualized support resources. Specifically, this means that by Fall 2021, we will increase percent of first-time full-time degree-seeking students completing a degree within 150% of time to at least 55% by making individualized learning support services available to more students. (Baseline: 2008 cohort = 41%). Third, we seek to reduce loss of enrollment revenue by retaining more students to the second year. Specifically, this means that we reduce first entering, full-time student attrition by at least ten percentage points, resulting in increased enrollment revenue. (30 more retained full-time first year students based on current on-campus annual cost per student at \$18,485 = \$554,550). (Baseline: F2013 to F2014 - 35.1% of students did not return the second year).

Table 5: Financial Implications of Tier 3 Events

Planning Element	Costs for Faculty	Support Staff
Doctorate Cyber Defense	\$520,000 (4 FTE)	
MS Security Policy & Administration		
Cyber Intelligence & Security		
Data Science		
Augmented Intelligence	\$780,000 (6 FTE)	
Cryptology		
Computational Biology		
Computational Chemistry		
History/Philosophy of Science and Technology	Included above	

Campus Honors Program		\$50,000 (1 FTE) \$23,000 (Operating Support)
Subtotals	\$1,300,000	\$73,000
Total for Tier 3		\$1,373,000

Tier 3 Intent: Coordination with Assessment of Strategic Planning

To increase awareness of strategic efforts across campus and the measurements therein, the institution will coordinate Tier 3 intentions through the agreed-upon tracking and communication mechanism: Achieveit). In the following dialogue box intended outcomes for Tier 3 MAP activities are paired with relevant pillars of the overall university strategic plan, suitable for insertion into Achieveit, leading to a campus culture that more easily promotes transparent decision-making, more easily facilitates effective communication, and more probably creating a shared governance campus environment. These interrelationships and goal achievement processes will be led and managed by members of the Implementation Council of Dakota State University.

Table 6: Tier 3 Intended Outcomes Matched to the Strategic Plan

Intended Outcome	Pillar from Strategic Plan	Initiative within Plan Pillar
1. . . . To successfully implement the Title III grant: Individualized Support to Stem Student Attrition	Grow to Thrive	Initiative 1
2. . . . to implement and institutionalize the Academic Indicators Program	Innovate to Transform	Initiative 3
3. . . . to expand and enrich the DSU Planning Narrative through the addition of the Facilities Master Plan	Grow to Thrive	Initiative 4
4. . . . to expand and enrich the DSU Planning Narrative through the development of the Institutional Advancement Master Plan	Collaborate to Lead	Initiative 1
5. . . . to expand and enrich the DSU Planning Narrative through the development of the Student Enrollment Master Plan	Grow to Thrive	Initiative 1
6. . . . to expand and enrich the DSU Planning Narrative through the development of the Athletics Master Plan	Grow to Thrive	Initiative 4
7. . . . to expand and enrich the DSU Planning Narrative through the development of the Technology Master Plan (including academic technology)	Educate to Inspire	Initiative 4
8. . . . to make DSU a great place to work	Innovate to Transform	Initiative 3

9. . . . Develop and support student-based entrepreneurship, specifically, the CEO (Collegiate Entrepreneurial Organization)	Innovate to Transform Mentioned	Initiative 4
10. . . . to generate new academic programs reflective of the mission and scope of DSU including Cyber Defense, Security Policy, Cyber Intelligence-Security, Data Science, Augmented Intelligence, Cryptology, Computational Biology, Computational Chemistry, History/Philosophy of Science and Technology	Educate to Inspire	Initiative 1

Implementation Council and the Planning Narrative

The DSU Implementation Council evolved from the DSU Planning Council in the Fall of 2016. The major responsibilities of the Implementation Council are: (1) Coordinating the strategic planning of the university (The Strategic Plan, the Master Academic Plan, and other planning enhancements like Enrollment Management, Facilities, Human Resources, Athletics, and others); (2) Creating an actionable division of labor around determining the progress of each of the 74 specific intended outcomes of these planning documents; (3) collect the performance data associated with each of the intended outcomes; (4) review/assess the appropriateness and effectiveness of each of the intended outcomes; and (5) provide information to the members of the campus community on the progress of our planning efforts.

A primary function of the Implementation Council is to report and monitor progress for each of the 74 intended outcomes. An “owner” has been assigned to each of the outcomes, and a five-meeting sequence of reporting by the owners on the progress for each intended outcome was completed in Spring semester 2017. In each of these reporting sessions owners responded to four basic framing questions:

1. What is the current status of the initiative/intended outcome? (On-track, off-track, or at-risk)
2. What recent accomplishments or set-backs have you encountered?
3. What support can the Implementation Council provide to help support this initiative? Does this initiative still work? Is it realistic and appropriate? and
4. Does this initiative overlap with any current CQI projects? If so, how?

In sum, the university Implementation Council is the governance body that monitors and reports on progress in university planning. Specifically, the Implementation Council is the primary locus for communication and performance around strategic initiatives for the campus. Implementation Council is the action group monitoring and working on intended outcomes of the strategic plan, an action group for the execution of efforts like the Master Academic Plan, and the place for action around the issues of continuous quality improvement.

Financial Impact of the Master Academic Plan

The conservative estimate of the financial impact of this master academic plan is as follows:

Tier 1	\$ 2,732,000	} MAP Cost	+	Endowment*	=	Total
Tier 2	\$26,710,000					

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Environmental Scan

Environmental scanning is a process that systematically surveys and interprets relevant data to identify external opportunities and threats. An organization gathers information about the external world, its competitors and itself. DSU believes it needs to adapt to a rapidly changing external environment, however the lead time once enjoyed analyzing and responding to these and other changes is decreasing. Traditional long-range planning models, with their inward focus and reliance on historical data, do not encourage DSU leaders to anticipate environmental changes and assess the impact on the organization.⁹ For each of the constituent groups below a member of the taskforce framed several questions designed to uncover important elements of planning. The results of DSU's Environmental Scan for the Master Academic Plan are available in the Resource Section of this document.

Appendix 1: Dakota State University Degree Programs

Graduate Degree

D.Sc. Information Systems	D.Sc. Cyber Security
M.S. Analytics	M.S. Applied Computer Science
Master of Business Administration (MBA)	M.S. Education Technology
M.S. Health Informatics	M.S. Information Assurance & Computer Security
M.S. Information Systems	

Graduate Certificates

Banking Security	Business Analytics
Ethical Hacking	Information Technology

Baccalaureate Degrees

Accounting (BBA)	Biology Education
Biology for Information Systems	Business Education
Business Technology (BBA)	Computer Education
Computer Game Design	Computer Information Systems
Computer Science	Cyber Operations
Digital Arts & Design: Audio Production	Digital Arts & Design: Computer Graphics
Digital Arts & Design: Film & Cinematic Arts	Digital Arts & Design: Production Animation
Elementary Education	Elementary/Special Education
English for New Media	Exercise Science
English Education	Finance (BBA)
General Studies (BGS)	Health Information Admin
Management (BBA)	Marketing (BBA)
Mathematics Education	Mathematics for Information Systems
Network & Security Administration	Physical Education

⁹ Cope, R. G. (1981). Environmental assessments for strategic planning. In N.L. Poulton, (Ed.), Evaluation of management and planning systems. New Directions for Institutional Research, 31, 5-15. San Francisco: Jossey-Bass.

Physical Science
Respiratory Care

Professional Accountancy

Associate Degrees

Business Management (AS)
Health Information Technology (AS)
Respiratory Care (AS)
Web Development (AS)

General Studies (AA)
Network and Security Administration (AS)
Software Development (AS)

Certificates

English for New Media
Health Information Clerk
Information Technology Entrepreneurship
Information Technology Management
Multimedia Design & Production
Object Oriented Programming
Web Application Development
Website Design & Development
Professional & Technical Communication

Health Care Coding
High Performance Computing
IS Management: Digital Photography
Multimedia
Network & Telecommunications
Technology Database Management Systems
Website Administration
Online Secondary Education

Appendix 2: Environmental Scan Results

Questions asked:

- What is your relationship/experience with higher education/DSU?
- What do you think of when you think of a university?
- What does the word “academic” mean to you?
- What do you think of when you think of the phrase, “Quality Academic Program”?
- In broad terms, where does DSU appear to be heading, from your point of view?
- If you were to recommend DSU to a friend or relative, what would you say? How would you make your argument convincing?
- How can DSU be a stronger academic institution?
- Is there anything you would like to add about DSU and its academic strengths and its academic future?

a. Chamber of Commerce/Community Group –

- What is your relationship/experience with higher education/DSU?** I am on the foundation board. We love DSU – xxx and his students did a STEM activity; it was fun and got the imaginations going! We use DSU faculty as resources when we have needs for staff training, especially in the areas of Asperger’s and social-skills training. Half of our employee pool is DSU students!
- What do you think of when you think of a university?** Diversity – students and faculty coming from all over to learn. University = higher education. I think of teacher education – and how the graduates are tech savvy and leaders in their school buildings. I think of how years ago, DSU was not known for a lot of programs but with the mission change and technology changes, DSU is what I think of when I think of a university.
- What does the word ‘academic’ mean to you?** Serious study. Knowledge. Deep thinking.
- What do you think of when you think of the phrase, “Quality Academic Program?”** Above-average program. Well-rounded. To me, quality means quality of faculty (for an education system). Accredited. Well-known for excellence.
- In broad terms, where does DSU appear to be heading, from your point of view?** Future looks great! New construction gives the community a feeling that DSU is progressing and moving upward. I think DSU is showing a sense of pride in accomplishment and we learn more all the time about the exciting things happening there. More and more diversity over the years. Technology has increased visibility in terms of jobs around Madison, overseas, etc. Cybersecurity is something to watch in wonderment! Who could have imagined this type of program even 10-15 years ago?
- If you were to recommend DSU to a friend or relative, what would you say? How would you make your argument convincing?** My family is coming up on four generations of family at DSU – so you can tell we are recommending and they are coming! Your reputation precedes you – don’t

have to say a lot to convince them of the good things at DSU. I have relatives who came for teacher education and technology majors. As a parent, DSU is a gem. Two of my three kids went here – and several nieces. It wasn't a good fit for my son, but he needs more kicks in the rear to keep him on task than his sisters. I have one family member who said they wanted to go far away, but later said they wished they would have stayed home and gone to DSU.

- vii. **How can DSU be a stronger academic institution?** Mentoring for new faculty and staff – show them how to fit into the community and into the fabric of life on the plains. Volunteering – it was great to see so many volunteers at the Day of Service last spring. Day of Service – what a great idea – visibility-wise, PR-wise; just made me feel good to see all that happening. Don't have too many classes with absent professors – this was the only complaint I heard from my girls. I also noticed that several competing schools boast their professors teach their own classes. I didn't really dive into it, but there you have it. As a business owner, any complaint I have with the quality of students goes more to the national trend and not a specific school. The division of older workers vs. younger workers and the difference in basic attitude.
- viii. **Is there anything you would like to add about DSU and its academic strengths and its academic future?** New programs? I don't know what that might be in, but something that would complement the programs already in place – or to think about programs that will be popular in the future. I hear the security graduates can go to Washington and get good jobs in government – keep those programs strong so more people know about them and more students enroll in them. What a great deal for DSU and Madison. Teacher education moving to the yearlong model helps bring a feeling of even more strength to the existing education majors. I hear good things about the year of student teaching. Keep doing what you are doing – future is bright! You have a good university, congrats on trying to improve it.

b. *Alumni group* –

- i. **What is your relationship/experience with higher education/DSU?** Alumni member, resident of Madison, business owner.
- ii. **What do you think of when you think of a university (DSU)?** 4-year education; a college of colleges; well-rounded education that includes general education; comprehensive degrees; influx of students; separate from a little town; could put a wall around campus and the town wouldn't be affected; exchange of minds and ideas; concern that the e-degree graduates would lack those skills and experiences. International or a diverse population of students and instructor and the doorway they provide to the rest of the world for the student body.
- iii. **What does the word “academic” mean to you?** Credit hours, studies, degree, library, books, courses. Doesn't always mean job or workforce development. Board's push is to design curriculum toward employable and

- workforce development for the student. Relevance of degrees and an ever-changing institution.
- iv. **What do you think of when you think of the phrase, “Quality Academic Program”?** Varies for everyone. I received a quality experience. I can look back at my professors and know exactly what I learned from them. As a graduate, I now have the resources and it has opened doors for me and could choose what I wanted to do for careers. Essentially, I had the background that got me my job. I received a teaching degree but did not teach, ended up owning his own business. Could have been in education but decided not to. I feel it was not a waste of time. I got a quality education, quality experience and the people that taught here are still a part of her life. Participated in a lot of extra activities. Quality comes from what you put into it as a student. Faculty and staff were very encouraging. Switched to business once at DSU – that degree opened the doors for jobs – the environment of a university changed her life. How to relate to the new type of student and give them the university experience.
- v. **In broad terms, where does DSU appear to be heading, from your point of view?** Technology focus vs. liberal learning – understands the focus being more on technology but concerned about losing the liberal arts. Student athletes bring diversity for the student body and the makeup of the university atmosphere. Understands the power of the momentum of the technology and the reallocation of university priorities. University leaders need to decide the momentum. Technology is huge, but so is teacher education.
- vi. **If you were to recommend DSU to a friend or relative, what would you say? How would you make your argument convincing?** It can be the best experience of your life if you make it that way. Diversity of the campus will add to that experience. Did recommend DSU to her sister as she likes arts. She is attending DSU but as an online student. Disappointed because her sister will not experience the campus atmosphere. Size of the university and classroom is awesome for students. Biggest draw is faculty because they know who you are. Professor/student relationships continue after students graduate. Consistent experience for someone who graduated years ago to someone who recently graduated. Small and personal is huge and hopefully won’t change in future years. Still goes back to the campus for help in their own business projects or their volunteer involvement. Group seems to be very proud of what DSU has become but fear the changes at the same time. Importance of remembering the original mission, education.
- vii. **Is there anything you would like to add about DSU and its academic strengths and its academic future?** They heard someone say that they didn’t realize DSU still gave teaching degrees which was very concerning to them. Need to give more market attention to the education programs. Don’t hear much about the business and medical records (Health Informatics) degrees either. Business degrees are a very quality program, but don’t hear much about it in the media. No one knows about these. Administration needs to live the vision. The building projects are exciting

- Beacom Institute – improving the buildings, campus improvements are great. Choose an avenue and go with it.

c. *Student Group* –

- i. **Summary & Highlights:** Students were complimentary on the quality of the academic programs and the degree to which technology is integrated throughout the curriculum. Many commented on the quality of instruction and the fact that faculty know the subject matter, care about student success, and try to engage students in real world application of course topics. At the same time, students realize that DSU must teach principles and concepts, not just tools. We must also provide a solid well-rounded education to produce good citizens of the world. For the most part we are meeting student expectations. The University is increasing its national reputation and that has helped to bring in students from across the country. This in turn strengthens the student experience overall. It is vital that we continue to push the envelope, take risks, and explore new areas to keep in front. We must take advantage of interdisciplinary options – maybe connect English & Computer Science students on a project for instance. At the same time, there were concerns and ideas for improvement. Just as we integrate technology we must also be aware of the need to address critical thinking and the ethical use of technology/information. We also need a bit more variety in our course offerings. We should find ways to make DSU easier to find for prospective students – such as program accreditation lists (that is how some folks find Cyber Ops for instance). We need more options for high quality student/faculty interaction such as undergraduate research. We must do a better job publicizing success stories – student awards, contests, etc. Students want to know what is going on and what is planned for the future. Perhaps we can find some peer institutions and learn from some of their successful initiatives. We should continue to improve relations with alumni and employers. It was a treat to talk to so many wonderful students and to hear their views – positive and negative. They care about DSU.
- ii. **Quality Academic Programs:** Principles & concepts. Not just tools; real world application/examples. Concepts over corporate partners. Training in the field & to be a good “citizen”. Well rounded, can make connections; intelligent, can converse. Engaged students. Quality teachers; know their area; can teach & engage. Student focused. Integration of technology into programs such as Education. **Focus, where we are heading:** National recognition. Quality bringing in more students from outside SD. Being ambitious – taking risks. Focus on strengths. New buildings are a symbol of campus progress. **Stronger:** Inclusion of critical thinking, ethics, philosophy. Connect with alumni – get feedback. Undergraduate research. Faculty/Student collaboration. Find peers – compare. Anything we can follow? Accreditation. Searches & lists – how to find DSU. More options for majors & classes. Ex: foreign language, Science gen-ed.
- iii. **Recommendations:** Jobs & Placement: needs & careers. Need more SD job options. Cost of school – quality. Faculty & community. Connections

across campus; play to our strengths. Work together. Students & faculty. Across campus. Student sharing. Partnerships of classes & majors. Lists of accomplishments. Awards; student contests; ... so others can find it.

- iv. **Concerns:** Grad programs need a review; rigor. Students don't understand degrees. COE: pack a lot in 3 years; so many tests. Limited options for majors & areas of study. Rigor & quality. Too easy early – long time before some underprepared students hit the wall. Raise entrance, or fail out sooner. Explain class connections to students. Where this fits in... Scholarships. Almost all depend on HS or ACT. No real way to “earn” a scholarship based on strong performance at DSU. Math 095 – teaching yourself.

d. *Faculty Group*

- i. **What is your relationship/experience with higher education/DSU?** Faculty to the institution, alums, employee, neighbor to university.
- ii. **What do you think of when you think of a university (DSU)?** Technology oriented, online education, pay check, small close knit university (but size can be misleading as it says 16-1 but really 30-1).
- iii. **What does the word “academic” mean to you?** Learning, thinking, rigor, processes in place to get students to a degree, translates into real world, content, theses, practice vs. pragmatic, research.
- iv. **What do you think of when you think of the phrase, “Quality Academic Program”?** Program with rigor that stands up to other programs that are similar. Rigor and relevance to today's society and needs. Preparing for a career and job. Critical thinkers make own decisions based on their own facts. Sense of learning and curious. Faculty that feel that they are part of the program or discipline. Engaged in a community. Meets program reviews (accreditation standards). Worthwhile education. Up to date. Do we feel DSU have quality academic programs – yes, we do. Company's coming from all over to hire our students. Small size can hurt and less opportunity to teach a larger variety of class offerings. Research opportunities are a little hindered by our size.
- v. **In broad terms, where does DSU appear to be heading, from your point of view?** Growing, on an edge but very easy to lose that edge. Vulnerable. Greater emphasis to online vs. traditional students. Geographically expanding – value ratio. Reputation is growing. Wish for the future – better identity and branding. Branding is technology, traditional heritage of mission, faculty resources and being able to offer a variety of courses. Balance of adjuncts vs. tenured faculty and face to face vs. online. Turnover of faculty is important issue and very vulnerable. No research and lack of funding for travel. Policy to fit the needs of the university.
- vi. **If you were to recommend DSU to a friend or relative, what would you say? How would you make your argument convincing?** Programs are great but lack of scholarships often prevents them from coming. Recruiting high ACT students is desired. Would like to see a break to state employee's children which would be a good idea for retention for faculty. At some

universities, the tuition stays at the freshman cost throughout their college career. Athletic scholarships are huge specifically in the sciences.

- vii. **Is there anything you would like to add about DSU and its academic strengths and its academic future?** Want DSU to maintain rigor and standard. Whatever the university decides to do, identify that goal, work towards it and do it well. Benefits is we are small and our programs need to be unique, not like all the other majors in the state. Because we are small we need to be more flexible to change programs. DSU has been the leader of technology. We need to figure out what our sell is (used to be tablet). Find our niche. Move into the mobile world and the retraining of the faculty to use those devices. Need a mobile initiative like we did when we implemented the tablets years ago. Want an academic environment to be more fun. Advising loads are large and that prevents the faculty from interacting. Importance of faculty load and advising, committee work and how to do well at all. Then the spiral of that. Workload issues and fairness. Need to be creative in ways to using resources. Would like a good mentoring program for new faculty and possible compensation or official mentoring. Center for Teaching Excellence designed to help faculty. Then a mentor in the content area.

e. *CSA Staff group*

- i. **What is your relationship/experience with higher education/DSU?** Alumni, career service member, CSA Council member, work-study student, grew up in Madison, live in Madison, volunteer at DSU events or represent DSU in the communication by volunteering. Ranges of years at DSU for the CSA Council members were from 3-30 years.
- ii. **What do you think of when you think of a university (DSU)?** Good academic programs, technology, major's w/ computers, sports, reputation, family that are alumnus, small community, faculty know you, low crime, diverse ideas shared, cost, scholarships, closer to home if transferring.
- iii. **What does the word "academic" mean to you?** Classes, programs, learning and enrichment, professors, variety of majors, not necessarily known for research.
- iv. **What do you think of when you think of the phrase, "Quality Academic Program"?** Accreditation is huge and publicized, quality professors, program prestige, good placement, faculty are interesting and engaged with students, program accomplishments.
- v. **In broad terms, where does DSU appear to be heading, from your point of view?** Good programs, NSA partnership, new labs, technology niche, limited programs are a negative, what happened to Ag Tech idea?
- vi. **If you were to recommend DSU to a friend or relative, what would you say? How would you make your argument convincing?** Can't get a better education anyplace else, construction is proof of a growing university, you get one-on-one with professors and assistance from staff, small community, cost is a benefit, progress on a new athletic facility, community supports DSU events such as sports.

- vii. **How can DSU be a stronger academic institution?** Better student advising and the help of Title III to establish an advising center will improve student advising during the academic year and in the summer when students come to visit. Parking, quality of student is better, help distance students in navigating the system with more video based tutorials as most are non-traditional.
- viii. **Is there anything you would like to add about DSU and its academic strengths and its academic future?** We have professors who truly care about the students, smaller class size allows faculty to spend more time with the students, students are nationally recognized but not getting that word out as best as we can, Starfish works when “veteran students” have issues in the classroom, so Starfish can work if faculty use it as a tool and the university can work with the student.

f. *NFE Staff Group*

- i. **What is your relationship/experience with higher education/DSU?** Alumni, employee, work-study, neighbor, lives on campus, high school student who worked here, second generation employee.
- ii. **What do you think of when you think of a university (DSU)?** Students are a number, family, living on campus, excellent academic programs, technology, innovation, community.
- iii. **What does the word “academic” mean to you?** Knowledge, well read, excellence, online and on campus presence, books, beyond the classroom, professors, research, advancement, degrees or programs.
- iv. **What do you think of when you think of the phrase, “Quality Academic Program”?** DSU, accredited, instruction, recognized, variety, quality professors and knowledge and willing to help, interested in the student’s success. Invest faculty in the institution. The professors focused on their expertise area. Relevant.
- v. **In broad terms, where does DSU appear to be heading, from your point of view?** Bigger and better things, forward, expansion and growth, the change of the university in the next five years is going to be unreal. Nationally recognized, won’t have to say which “Dakota University” we are.
- vi. **If you were to recommend DSU to a friend or relative, what would you say? How would you make your argument convincing?** Placement rates, small class sizes, excellence programs, quality education, individualized approach and students are not a number, innovative and technology. Have nephew coming but talked about the program more, don’t necessarily think four years out. Cost competitive.
- vii. **How can DSU be a stronger academic institution?** Improvement of communication, getting the message out, continue to hire and retain good faculty, commitment to collaborating among the colleges and student affairs. Refine our identity and do it well. Ability to offer programs that increase the student’s employability. Include undergraduate research into the students experience and building and create those opportunities.

Enhance programs that develop faculty/student projects or research experiences and writing skills; find ways to integrate and develop soft skills of our students in and outside the classroom; have faculty training on ways to teach those students.

- viii. **Is there anything you would like to add about DSU and its academic strengths and its academic future?** Placement rates good, we are technology infused university. Students know what technology infused does to enhance their careers. Good job in outreach, by holding camps and visiting schools. Our students are people and it is a strength of the university. Students know who their RA and RD is. DSU tries hard to make sure our online students, instructors, advisors and staff have a relationship with them and try to be more personal. More degrees in Sports Management/ broader type degrees / criminal justice / sociology. Need to look at ways to increase diversity.