2015-2019 Planning Report

Institutional Academic, Research, and Student Service Plans

Approved by the Board of Regents December 2014

NSHE LEADERSHIP

Board of Regents

Mr. Kevin J. Page, Chairman

Mr. Rick Trachok, Vice Chairman

Dr. Andrea Anderson	Mr. Robert J. Blakely
Mr. Cedric Crear	Dr. Mark W. Doubrava
Dr. Jason Geddes	Mr. Ron Knecht
Mr. James Dean Leavitt	Mr. Kevin C. Melcher
Dr. Jack Lund Schofield	Ms. Allison Stephens

Mr. Michael B. Wixom

Mr. Scott Wasserman, Chief Executive Officer and
Special Counsel to the Board of Regents

Officers of the Nevada System of Higher Education

Mr. Daniel J. Klaich, Chancellor

Mr. Donald D. Snyder, President
University of Nevada, Las Vegas

Dr. Marc Johnson, President
University of Nevada, Reno

Mr. Bart Patterson, President
Nevada State College

Dr. Michael Richards, President
College of Southern Nevada

Dr. Mark Curtis, President
Great Basin College

Dr. Maria Sheehan, President
Truckee Meadows Community College

Mr. Chester Burton, President
Western Nevada College

Dr. Stephen Wells, President
Desert Research Institute

TABLE OF CONTENTS

INTRODUCTION

Since 1967, the Nevada State Legislature has mandated that public higher education institutions compile a comprehensive report on program plans. Therefore, this report is prepared in accordance with state law requiring the Nevada System of Higher Education (NSHE) to prepare a biennial report for submission to the Nevada State Legislature that outlines a plan for new programs and expansions of existing programs of instruction, public service and research. Specifically, *Nevada Revised Statutes* 396.505 provides the following:

> *1. The Board of Regents shall prepare a comprehensive plan for the next 4 years which explains:*
>
> > *(a) Any anticipated new programs and expansions of existing programs of instruction, public service or research, itemized by year and by purpose;*
> >
> > *(b) The anticipated cost of each new or expanded program described under paragraph (a);*
> >
> > *(c) The amount and source of any money anticipated to be available, from sources other than legislative appropriation, to meet each item of anticipated cost listed pursuant to paragraph (b); and*
> >
> > *(d) Any further information concerning its comprehensive planning which the Board of Regents may deem appropriate.*
>
> *2. The Board of Regents shall biennially bring the plan up to date for the ensuing 4 years, and shall present the revised plan to the Legislature not later than February 1 of each odd-numbered year.*

Thus, this report summarizes the institutions' academic and research plans, also in accordance with Board policy (*Title 4, Chapter 14, Section 3* of the *Handbook*). These plans must be viewed in the context of an institution's overall budget and fiscal capacity. In some cases, the plans may include academic programs that are being discussed or considered for the future, but that may not be realistic given the fiscal or other constraints facing the NSHE. However, they are included in the report as an indication of what may come if funds

should become available either through grants or public support. Many of the anticipated programs are projected to be funded with federal grants, making some programs more likely than others to begin in this time of limited state resources. To that end, these lists may be viewed as "wish lists" based on resource availability. Because this report is updated and published every two years, it is often the case that institutions may have programs on the list from several years back and continue to roll them forward in the hope that eventually resources will be available to develop such programs. The plans are intended to notify various constituencies, including the Board of Regents and the Legislature, of what institutions are hoping to develop and believe is needed for them to meet their mission and the needs of the state, but they may not be construed as definitive in terms of the date of implementation.

NSHE College Attainment Agenda – Creating a Culture of Completion

The institutional academic, research and student service plans set forth in this report for 2014-1017 reflect institutional missions, as well as the initiatives adopted by the Board of Regents in its 2012 *Strategic Directions* that broadly include:

- Increase student achievement, retention and success;

- Increase transparency, accountability and performance;

- Continuous review and revision of programs to support innovation and responsiveness; and

- Ensure that higher education is accessible and affordable for all Nevadans.

The roadmap outlined within the Board of Regents' *Strategic Directions* includes continued participation in the initiatives and goals promoted by Complete College America (CCA), a national nonprofit whose single mission is to work with states to significantly increase the number of Americans with quality career certificates or college degrees and to close attainment gaps for traditionally underrepresented populations. As a member state, Nevada is committed to annual, compounding increases in the number of completers of certificates, associate's degrees and bachelor's degrees.

Working to accomplish the initiatives set forth in its *Strategic Directions*, including the Nevada's CCA goals, the Board of Regents adopted a number of policies and initiatives in recent years aimed at creating a culture of completion in Nevada, including:

- 60/120 Credit Policy – Placing caps on bachelor's degree programs at 120 credits and associate's degrees at 60 credits to provide the necessary framework under which a student who attends full-time can complete a bachelor's degree program in four years or an associate's degree program in two years.

- Low Yield Policy – Requiring institutions to review academic programs on a regular basis in the context of degree productivity. Institutions must develop a plan for increasing degree productivity for or eliminate those programs that are identified as low yield. The review process requires faculty participation and is important to ensuring that critical resources – including faculty – are not misdirected toward programs that no longer have value to students.

- Excess Credit Policy – Charging students a 50 percent surcharge if they accumulate more than 150 percent of the credits required for their degree program. The fee will be charged, for example, after 90 credits have been attempted towards a 60-credit associate's degree or 180 credits towards a 120-credit bachelor's degree. Exceptions may apply on a case-by-case basis. This policy has been adopted in other states and mirrors existing requirements for students to receive federal financial aid. Among the many benefits, the policy encourages students to meet with advisors to ensure they are on track for graduation and not spending valuable time taking courses that will not count toward their chosen degrees.

- New Funding Formula and Performance Pool – Implementing the new funding formula approved by the 2013 Legislature that consists of two primary components – a base formula driven primarily by course completions (instead of focusing on enrollments) and a performance pool driven by metrics that align with the goals of the State and incentivize institutions to graduate more students.

- Access and Affordability – Continuing to work on methods of increasing access and affordability. The Chancellor's ad hoc Access and Affordability Committee charged with examining the access and affordability of NSHE institutions in the context of encouraging full-time enrollment and degree completion recommended various policies, including the excess credit fee policy, that the Board has since adopted.

  The report of the committee stresses the need for a state-supported financial aid program, particularly in the context of students from the lowest income quintile who must expend on average 53.4 percent of family income to pay for one year at a community college after financial aid. Through the interim study process, NSHE presented a recommendation for a state-supported financial aid programs that may be considered by the 2015 Legislature. Additional information on access, affordability, and financial aid within NSHE is available through NSHE's annual Financial Aid Reports.

- "15 to Finish" Campaign – Encouraging students to enroll full-time (15 not 12 credits) and graduate on time. This campaign strongly supported by CCA stresses academics and completion through state and national data that shows students who enroll in 15 or more credits graduate at significantly higher rates and have higher grade point averages. Importantly, NSHE and national data demonstrate that regardless of academic preparedness or preparation, work schedules, race, gender, or socioeconomic categories, students are more likely to complete with a real full-time load.

  The benefits of taking 15 credits a semester are not only intuitive, but compelling: Students who take 15 credits a semester (or 30 credits a year) are more likely to graduate, pay less in tuition and living expenses, accumulate less debt, and gain additional years of earnings. For institutions, the benefits include not only higher graduation rates and demonstrated student success, but also freeing up limited classroom space for other students. Recognizing that there may be compelling reasons for some students – particularly older students – to attend part-time, the Nevada "15 to Finish" campaign initially is focusing on students between the ages of 18 and 24 years who are already taking 12 to 14 credits – a substantial number at many institutions.

UNIVERSITY OF NEVADA, LAS VEGAS

I. Strategic Objectives

In the next four years, UNLV will pursue a number of strategic objectives aimed at building on the many successes the institution has already achieved. As a comprehensive, doctoral-degree-granting research university, UNLV supports research, scholarship, and creative activity in all of its academic programs. The university holds the Research University/High" (research activity) designation from the Carnegie Foundation for the Advancement of Teaching. Last year, it established the Tier One Initiative designed to advance the institution to the list of top 100 American research universities among Carnegie's Research University/Very High (RU/VH) rankings. In order to work toward achieving this distinction, UNLV will conduct a strategic planning process in 2014 and will place additional emphasis on advancing the university's research agenda. As the national and state economic situation improves we will seek to build focused research and academic programs that are founded on excellence and will provide the state and region with a strong workforce and a university partner to build and provide an engine for economic development.

A top priority for UNLV at this time is the creation of an allopathic medical school; it is anticipated that the school, once established, will have tremendous impact on the university research endeavor as well as the economy of southern Nevada. The school's total economic impact is projected at $1.2 billion per year within approximately 15 years' time; planning is underway for the first class to enroll in 2017.

UNLV will continue the aggressive path it has charted on diversity matters in terms of both students and faculty. The Faculty Diversity Hiring Program, which seeks to broaden our academic faculty search pools by having departments engage diversity in a more intentional way, will continue. This program has yielded critical data about our faculty search pools that departments can use to make improvements in future searches. We have institutionalized our campus climate survey such that it will be given at regular intervals and assessed, allowing us to track perceptions of campus climate longitudinally. Over the next several years, UNLV will be engaged in the Strategic Diversity Project that was launched in 2014. This project is designed to result in not just a campus diversity plan, but in positive transformational change at all levels of the institution. Finally, through a reorganization of UNLV's Office of Diversity Initiatives, that office will become the central node for campus diversity issues, which will allow for both a refocusing and a harnessing of diversity capacity throughout the institution.

Academic Programs

UNLV is in the midst of implementing a new and innovative undergraduate education curriculum. Several years ago the university adopted a set of new learning outcomes for all undergraduate students covering communication, inquiry and critical thinking, global/multicultural knowledge and awareness, citizenship and ethics, and intellectual breadth and lifelong learning. These learning outcomes are closely aligned with national best practices in undergraduate education and institutional expectations regarding the skills and knowledge students will need to be successful now and in the future. These learning outcomes are embedded throughout the general education curriculum and being woven into and reinforced within each of our undergraduate degree programs based on a vertical model progressing from an introduction of each learning outcome early in the curriculum to more advanced coverage as students complete their program of study.

To effectively deliver these skills and this knowledge, UNLV has implemented university-wide high-impact practices including first-year seminars designed to support student learning and retention, and second-year seminars that are reading and writing intensive courses meeting research-based hallmarks for improving communication and critical thinking skills. These learning outcomes are also being reinforced within each degree program by a course or experience that welcomes students to the major, orients them to the expected learning outcomes for the degree, and reinforces the essential skills of communication and critical thinking in degree-relevant ways. UNLV is moving toward having all programs provide a culminating experience that ties together, reinforces, and assesses the university-wide and degree-specific learning outcomes. Other high-impact practices being used in undergraduate degree programs include learning communities, service learning, and undergraduate student research. Additionally, our Tier One objectives will be tied into this program by providing opportunities for undergraduates to participate in more of our faculty's research projects.

Integrated with these efforts to enhance and refine our general education curriculum and our undergraduate degree programs, UNLV is building direct assessment of student learning into each degree program. This integration enables the university to determine how well students are mastering the intended learning outcomes while also helping academic units identify areas needing improvement as part of an ongoing iterative process.

Economic Development

UNLV seeks to develop a stronger workforce, create new business and industry enterprises, and develop new technologies to grow and sustain Nevada. One of the greatest priorities in the next planning session will be to support innovative research that translates into economic development for the State of Nevada. UNLV's efforts to market its faculty's intellectual property are currently focused on five areas with the greatest potential for commercialization: biomedical; gaming; radiochemistry; nanotechnology; electrical engineering/nanotechnology; and security technology. Additionally, the Office of Economic Development will continue building licensing revenue, facilitating industry-sponsored research, and increasing numbers of research disclosures and patents.

Economic Diversification

UNLV is committed to helping Nevada diversify its economy through the development and growth of knowledge-based industries. We will accomplish this by developing strategies to align education and research expertise with emerging regional development sectors.

Program Proposals

As a result of comprehensive campus-wide planning, an inventory of possible new programs of study is included below. Our Tier One initiative requires that only well thought-out and focused programs be developed, creating a synergy of a stronger curriculum, stronger research, and a stronger engagement with the community. Thus, it is important to establish a framework for the selective development and implementation of such programs as we move forward.

This list has not been fully vetted through the academic and administrative system within the university. Our process is as follows: when a unit believes that it is an appropriate time to move a program forward, a needs-assessment will be conducted, the academic quality of the program will be reviewed by faculty committees, the fit with the university and NSHE missions will be assessed, and the budgetary implications will be reviewed. If the new program is deemed appropriate by the university, then the proposal would move forward to the NSHE Academic Affairs Council and, ultimately, to the Board of Regents for review and final approval.

The program proposals listed below, Table 1, have been developed to align educational and research expertise with emerging regional economic sectors that will directly support economic diversification and expansion in Nevada. These programs are interdisciplinary in design, crossing traditional boundaries between academic units.   Table 2 contains a list of program proposals that are more traditional in nature and that reflect logical expansions of degree offerings providing appropriate expertise to our students.

Table 1

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Certificate in Medical & Professional Ethics	Meet demand for ethics training in professions, interdisciplinary	2016	Possibly 1 tenure track position	None anticipated
M.F.A. (Master of Fine Arts) Design	Design innovation in creative technologies; multidisciplinary	2017	Unknown at this time	Differential tuition; contracts
Master of Healthcare Interior Design	Multidisciplinary; meet demand for design professionals	2016	1 faculty plus existing PTIs	Grants, community collaborations
M.S. Data Science	Interdisciplinary with Lee School of Business, Colleges of Engineering & Science	2016	3 faculty positions; $100,000 recurring, $250,000 one-time cost	Industry support, federal funding
M.S. Interdisciplinary Information Technology	Graduate for those with B.A. or B.S.	2016	1 faculty	Industry partners
Masters in Hospitality & Gaming Analytics	Interdisciplinary program	2016	No additional costs	No anticipated funding requirements
Master of Urban Planning	Interdisciplinary	2016	$65,000	Grants, contracts
Juris Doctor/Master's in Public Health	Interdisciplinary	2016	Implement with existing resources	Student fees, research grants, community partners

Table 1 Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Ph.D. in STEM Education	Multidisciplinary program housed in College of Education	2016	2 faculty, 1 coordinator	Industry partners, donors, grants
Ph.D. Biomedical Science & Engineering	Interdisciplinary degree with School of Allied Health, Colleges of Engineering & Sciences	2016-2018	6-8 new faculty in multiple units. Salary & startup estimate – 3 million.	Tier 1 initiative funds then federal funding
Ph.D. Materials Science & Engineering	Interdisciplinary with Colleges of Sciences & Engineering	2016-2018	2-4 new faculty plus existing faculty. Salary & startup estimate 1.5 million.	Tier 1 initiative funds, industry support, federal funding
Ph.D. Interdisciplinary Health	Interdisciplinary	2016	8 graduate assistants annually	Self-funded plus research grants

Table 2

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
B.S. Aerospace Engineering, emphasis Unmanned Aerial Systems	College wide B.S. degree	2017	4 faculty positions & lab set up; $450,000 recurring & $500,000 one-time cost	Federal funding
B.A. Design	Multidisciplinary in Fine Arts	2016	PTIs; technology lab support	Differential tuition; contracts
B.A. Comparative Ethnic Studies	Training in diversity & global awareness with jobs in human resources & diversity offices	2016	1 new assistant professor $65k	None anticipated
B.A. English Professional & Technical Writing	Increased demand for writers in various industries	2016	$65k Assistant Professor; $36k Administrative Assistant	None anticipated
B.A. Chinese	Increasing demand	2016	Additional PTI funding, 2 new lecturer or FIR positions at $38-42k	None anticipated
B.A. Japanese	Increasing demand	2016	Additional PTI funding, 1 new lecturer or FIR positions at $38-42k	None anticipated

Table 2 Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
B.S. Physical Education, Elementary and Secondary Licenses	Multidisciplinary degree	2016	1 FIR, 1 Coordinator	Industry partners, donors, grants
B.A./M.A. Communication Studies	Students will earn both degrees in 5 years	2016	None	None
B.S.N to D.N.P. (Doctor of Nursing)	Speed progression of students to DNP	2016	2 faculty	Self-sustaining DNP will change to state funded with differential tuition
M.A. Art Education & Technology	Online degree; address need for education in creative technologies; multidisciplinary	2016	Online course development & PTIs	Elearning fees
M.A. Philosophy	Emphasis on philosophical ethics; train future educators	2016	2 new lecturer positions at $65k	None anticipated
M.S. Speech Pathology/ Certificate of Clinical Competence	State will soon require speech pathologists to be certified in clinical competence	2016	Unknown at this time	Community partners
Masters in Hospitality & Gaming Analytics	Multidisciplinary program	2016	No additional costs	No anticipated funding requirements
Executive M.B.A. evening	To target mid to senior managers in Las Vegas & surrounding areas	2017	None	Self-sustaining
M.D. (Doctor of Medicine)	Meet increasing demand for medical in the largest population area of Nevada	2017	Being determined	Donors, grants, state funding
Ed.S. Teacher Leadership	Collaboration with Clark County School District	2016	2 Faculty, 1 Coordinator	Industry partners, donors, grants
LL.M. Health Law	Graduate program for those with a law degree	2017	Implement with existing resources	Student fees

Table 2 Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Ph.D. Business Administration	This would be the only doctoral program in the Lee School of Business	2018	$500,000 for faculty and graduate assistants	Special course fees
Ph.D. Counselor Education	To address the needs for qualified counseling supervisors & researchers	2016	2 tenure track faculty, 2 doctoral graduate assistants	Grants
Ph.D. Early Childhood Education	Provide advanced degree for those in early childhood learning	TBD	Unknown at this time	Grants
Ph.D. English Language Learning	Provide advanced degree for those teaching English as a second language	2016	Unknown at this time	Personnel Preparation Grants
Ph.D. Interdisciplinary Arts	Multidisciplinary in Fine Arts	2018	Some additional PTIs	Differential fees; grants

Program Support and Integration

As part of a strategic effort to promote data-driven decisions and facilitate linkages among goals and performance measures at the all levels of the university, UNLV is investing in the development of an integrated, enterprise data warehouse. The Oracle Campus Solutions EPM and Business Intelligence (BI) software products are, in combination, the most powerful platform for providing information for decision support and application services at UNLV. This set of tools is being developed to collect, structure, and analyze data from enterprise systems (student, human resources, and finance) as well as non-enterprise data systems. The product of these efforts is the delivery of timely dashboards and reports for campus executives, business managers, and department chairs, who want to monitor the adoption of strategic initiatives and manage daily operations. Development efforts are guided by the following principles:

- Open access by campus users while maintaining necessary security;

- University-wide solutions that can be leveraged by all university units;

- Full array of information delivery solutions to support all levels of users;

- Self-service emphasis and distributed development efforts to support the individual needs of different functional units;

- Centralized training and data dictionary to support access and adoption.

With a historical focus on providing information for decision-makers across all vice-presidential areas and levels of the institution and a strong technical background in report applications development, in 2010 the Office of Institutional Analysis and Planning was given the responsibility for both data warehouse and BI development. Integrating the primary data functions of the campus into one unit, the office was formally renamed as the Office of Decision Support in 2013. The office is responsible for supporting the university leadership in its commitment to accountability and evidence-based decision making across the institution. By aligning the four interrelated functions of institutional research (IR), data governance, data warehousing and BI, the office provides a comprehensive foundation for data collection, integration, analysis, and reporting.

Within the context of Decision Support, the IR function plays a crucial role in guiding the development of the enterprise data warehouse and business intelligence at UNLV. With primary responsibility for identifying current and emerging issues and extensive knowledge of campus data, the IR staff are experts in defining strategic data elements, informing the content of dashboards and reports, and effectively presenting information.

Data governance provides a structure for strategic collaboration around the institution's informational assets. Decision Support relies on the involvement of campus leadership for guidance on how information can benefit the university, on the community of data users for advice on what information is valuable to them, and on the university data stewards to develop processes and policies to ensure that all critical data is managed correctly and consistently. By facilitating communication among these constituencies, Decision Support promotes a culture of shared responsibility for data as an institutional asset. The central presence of both the IR and data governance functions in the office ensures that there is close collaboration with the academic and business units in the development and delivery of informational resources.

Developing the enterprise data warehouse entails building a data infrastructure that enables the timely delivery of strategic information to institutional stakeholders. Initial development efforts were focused on the shorter term goals of meeting official reporting requirements, developing a custom census solution for official and trend reporting, and getting data access to key campus users. By working with business experts from the offices of Enrollment and Student Services, Budget, and the Controller, the development team completed initial admissions, enrollment, and degrees conferred data marts as well as a prototype for a student financial data mart. More recent data warehouse development projects have included foundational work in data modeling and architectural design, and the design and implementation of a new student tracking data mart, which was informed by a series of focus group sessions with representatives from across campus. All of these efforts serve to speed up the delivery of information pertinent to institutional initiatives, such as retention and completion, enrollment management, and achieving Tier One status. Current projects include identifying and addressing informational gaps, such as the need to incorporate financial aid data, and planning for the upcoming iNtegrate 2 implementation of new ERP systems for human resources and finance. Planning beyond iNtegrate 2 will involve the integration of data from additional systems, such as those for research and space utilization.

As part of the self-service BI model, Decision Support develops institutional dashboards, which enable information delivery to a wide array of campus data users. An enrollment management dashboard was delivered to campus executives and managers in May 2012, with refinements added as the data warehouse infrastructure has been further developed. In fall 2013, the office rolled out two institutional dashboards in support of UNLV's latest Retention, Progression, Completion (RPC) initiative. The Risk Factors for Retention dashboard is a prototype that presents data on undergraduate students who may be at risk for leaving the institution, and the RPC Benchmarks dashboard shows retention, progression and graduation rates for various entering cohorts by gender, race/ethnicity, college, department and

major. A series of College and Department Profiles dashboards in currently under development. An RPC Analytics dashboard, which will deliver additional data and metrics related to student success, is in the early planning stages.

The emphasis on self-service BI and distributed development also allows units with the expertise to deploy their own dashboard and applications, tailored to their business requirements and with more control over the development timetable. Institutions that have used this model report that the decision-makers are more likely to be data-driven when they have a greater level of creation and management responsibility for reports. Along these lines, the Decision Support team provides training and support for targeted academic and business units, to facilitate collaborative report development and sharing within their areas. Recently, these efforts have included partnering with the Academic Success Center, Online Education, the Graduate College, College of Sciences, College of Education, Boyd School of Law, the Budget Office and the Office of the Controller.

As the adoption of BI tools continues to grow across campus, Decision Support is identifying strategic ways to address the increased need for training and support. To ensure appropriate staffing levels and expertise for iNtegrate 2 and beyond, the office will include campus constituencies in developing an updated vision, and a longer term project plan for the data warehouse and BI. The plan will include a roadmap that prioritizes subject area content build out, training needs, technical, and maintenance requirements. The emphasis on self-service will require resources within each business area committed to data warehouse development, in the form of business experts assigned to communicate development priorities and to assist in requirements gathering and data definition.

II. Student Services

Enrollment and Student Services

Enrollment and Student Services, for the period 2014 - 2016, will work collaboratively and diligently in its offices and across campus to support the vision and initiatives put forth by the president and administration. In this spirit, we will focus on our efforts, and thus our support and advances, built upon four pillars: Quality, Quantity, Diversity and Service. We will have purpose of action, pride in our approach and focused efforts on performance and measurable outcomes.

In the areas of Recruitment, Admissions and Orientation, efforts will be focused on meeting strategic enrollment objectives related to increases in resident student revenue, increases in non-resident student revenue, and increasing the academic profile of incoming freshmen. The Office of Admissions will continue to review and assess the overall undergraduate recruitment process while also consistently evaluating all practices and activities to determine their effectiveness and return on investment to adequately support our expanding priorities and strategies. A key initiative in the short term will be to fill vacancies for existing and new positions that have been created. With the implementation of a new customer relationship management (CRM) tool, in collaboration with Enterprise Application Services, we will continue to provide additional tools and resources to our admission counselors for managing their student populations. We want to ensure that staff have the ability to track and review necessary information about prospective students so that targeted campaigns can be implemented in an effort to increase applications, yield and enrollment. While marketing materials have been revamped in the last three years, a need still exists for additional and more robust communication pieces. Marketing materials will be addressed to support and enhance recruitment activities; creating tailored and targeted communication plans for specific programs and audiences. We will expand our library of materials with creativity in their design, usage and mediums.

The new CRM tool will give the department expanded ability for tailored and targeted communication flows and prospective journeys. Specific efforts will be focused on enhancing efforts in this area. We will continue to use metrics to guide our activities and to gain additional efficiencies in cost, yield, and enrollments. The new CRM tool will also provide additional avenues to further refine metrics and measures of return on investment (ROI). We will utilize this ROI information to ensure that our activities and efforts are focused in areas where a high ROI is achieved. Orientation, as will all events and outreach activities, shall continue to be purposeful and add value to the experience of participants. Historic barriers, be they organizational, cultural or independent interests, will be overcome so that efforts and outcomes may be optimized; allowing for reengineering of processes and programs with measurable outcomes and audience experience in mind. Recruitment activities, and student services, will also be expanded in targeting international and veteran populations.

The United States military consists of a rich and diverse population of volunteers that reflects the diversity of America and our population of student veterans at UNLV. The Office of Veteran Services will continue to serve our growing diverse student veteran and military family community by developing a welcoming, veteran-friendly campus environment that fosters academic and personal success. We will continue to provide programs that are nationally recognized as the model for welcoming, admitting, mentoring, and providing resources to student veterans to help increase retention and graduation. These programs represent the foundation of services from which to further build and expand.

Energies and talent will continue to be directed at, and infused into, the Office of International Students and Scholars (OISS). Over the course of the 2014-2016 period, we look to establish premier and expanded services distinctively designed to assist international students in their transition and guide them throughout their duration at UNLV. OISS will work collaboratively with admissions through the development, and implementation, of an international recruitment plan.

Continuous quality improvement will be a central focus of the Office of Financial Aid and Scholarships and its operations. We will identify areas of improvement not only in our business and service delivery models, but will explore opportunities where we can best leverage the programs to enhance access, recruitment and retention. In support of institutional goals, we will look to implement early aid offers (estimates) to assist recruitment efforts related to high achieving students and for other specified programs. We will work with colleges and departments to increase the efficiency and timeliness of scholarship awarding; and will work to improve, be it via technology or process reengineering, the accuracy and timeliness of federal, state and institutional programs as well. We will mine our data more effectively and use it to determine not only areas of improvement, but also allow it to help better guide us in our awarding decisions.

ESS will further implement the "four pillars" by expanding our service model, organizational and process review to other Enrollment and Student Service activities. We will look to develop new, and nurture existing, relationships with Academic Affairs to improve the success, and quality of experience for students. We will look for ways where we may enhance retention efforts, expanding abilities to detect "early intervention" traits and needs, working collaboratively with faculty and advisors to support cohesive student centric success efforts.

The Registrar's Office will be continuing with, or undertaking, a number of initiatives related to the effective progression and completion of students to include: enhancing block scheduling efforts to ensure students are registered for the classes they need in their first two semesters and beyond, reviewing transfer articulation policies such that the priority is placed on top feeder schools, implementing a curriculum work-flow so that proposed classes and program changes are properly and appropriately

vetted with a goal of reducing bottlenecks, enhancing use of scheduling data to promote maximum efficiencies when it comes to class schedule placement and room utilization, incentivizing timely grade submission, reviewing frequently requested degree audit exceptions and waivers to identify and address roadblocks, and the revision of graduation application procedures so that students are proactively moved to the degree conferral stage at the appropriate point in their academic career. Additional efforts will be centered around enhanced communication with students at all stages of their academic career, including students who have stopped out for various reasons, as well as enhanced outreach to the faculty and staff as it relates to FERPA, document retention, electronic forms, and the appropriate routing of students to minimize runaround.

Career Services will continue to develop quality programming that addresses the diverse needs of students from all majors to assist them through their career development process. Career Services will maintain a productive working relationship with Academic Affairs to further enmesh career/major awareness into the fabric of the university in order to ensure continuity of message surrounding major and career exploration.

In order to successfully obtain our vision and goals we must have stellar support mechanisms in place to provide us with the data and tools to be surgical in our approach. We must have ways to detect, inform and perform. Our Enterprise Application Services (EAS) unit will continue to work to merge enterprise and business application support under one, unified support model. They will seek and explore new solutions that provide optimum performance with the least amount of administrative maintenance and look to expand the delivery model of services. A large effort will be put forth in improving the communications with the students and service to the students, faculty, and staff mainly through efforts with a new customer relationship management (CRM) solution. It is our intent to collaboratively lay the groundwork and vision for the possibility of implementing a new CRM solution that will provide the campus with common tools to communicate more quickly and effectively, storing interactions and data, so that we may ultimately provide better and more seamless service and act as one institution.

Campus Life is comprised of Housing and Residential Life, Campus Life Business Office, Student Union and Event Services, Campus Life Assessment, Campus Recreational Services, Student Affairs Maintenance, Campus Life Technology, and the Office of Civic Engagement and Diversity which includes Fraternity & Sorority Life, Campus Activities, International Student Programs, Multicultural Programs, Center for Social Justice, Service Learning, Student Involvement and Organization Development, and an 18 credit Leadership and Civic Engagement Minor.

Campus Life utilizes an iterative assessment cycle. Campus Life learning outcomes are derived from Campus Life's Co-curricular Agenda which has been updated to correspond with the University Undergraduate Learning Outcomes (UULO's). The Campus Life Assessment Committee has created a question bank with suggested assessment questions for the learning outcomes. The strategic plan calls for the learning outcomes to be assessed at the macro-level with student learning data aggregated across co-curricular programs. Campus Life will also implement a "We Heard Your Voice" campaign to report back to students how their survey responses were used to improve the student experience.

Recent growth in student involvement (the number of students involved in fraternities and sororities has doubled in size in the past five years) is expected to continue to grow as enrollment of traditional aged undergraduates increases. The Office of Civic Engagement and Diversity, Campus Recreation Services, and Residential Life will work with the campus to launch a comprehensive involvement campaign utilizing technology to reach students. This initiative is related to UNLV's Retention, Completion, Progression goals as assessments indicate involved students report statistically significant more satisfaction with their UNLV experience than non-involved students. A comparison of involved students to their first-time, full-time enrolled peers also indicates involvement is correlated with higher retention rates and higher GPA.

The Office of Civic Engagement and Diversity partners with faculty and community non-profit organizations to provide students with service learning experiences related to course curriculum. The number of sections with a service learning component has grown significantly over the past three years – from 26 sections in 2012 to 89 in 2014 - and is anticipated to continue to grow given the proven outcomes of this high impact student learning practice. Providing meaningful service experiences for students, given the increasing volume of students participating in service, will require more intentional partnerships with Las Vegas area non-profit organizations.

For several years, the Office of Civic Engagement, faculty and university facilities staff have been working to create a community garden on campus to provide 1) a space for undergraduate research, 2) an opportunity for UNLV students to work with community agencies needing fresh food, and 3) faculty and staff a place to relieve stress through gardening. Two architecture classes developed the design and architectural plans for the community garden. Using components of these plans, the first phase of the garden will be ready for spring 2015 with additional initiatives to be designed and implemented over the next four years.

Student Union and Event Services is working to improve space to support meetings, events and conferences in the building through the addition of "smart conference room" technology. Built-in systems for projectors and sound in every room will make presentations and client-support easier. Additional pushes for sustainability, education and other technology will be the focus in the next four years.

In March 2013, Student Union and Event Services (SUES) was offered the opportunity to assume oversight of event operations in the Stan Fulton Building. Working with the William F. Harrah College of Hotel Administration, SUES will continue to support of the International Gaming Institute classes and trainings, College of Hotel Administration department events, community partnerships with outside groups, as well as promoting the availability of additional meeting rooms to students, faculty and outside groups.

Residential Life, through research and promising practices, continues to enhance the interaction between students and faculty outside of the classroom which is essential for a vibrant intellectual life. A Faculty-in-Residence program is being created to foster this interaction. A selected faculty member and their family will live in a designated apartment within the Tonopah Complex enabling them to interact with residents throughout the school year. The Faculty-in-Residence program will work in close partnership with the Assistant Director for Residential Education to enhance the intellectual environment, supporting academic excellence, providing opportunities for other faculty to interact with residents, and work with a Living-Learning Community for alternate admits. Typical programs provide opportunities for intellectual, artistic, and social learning experiences such as:

- Inviting another faculty member and a group of students to dinner

- Showing a movie in the faculty residence

- Organizing a group of students to attend a cultural event or lecture on or off campus

- Inviting a faculty member to give a talk at the residence

- Coordinating workshops

- Offering the function room of the residence to student groups for meetings or program events of their own

- Inviting a speaker lecturing elsewhere on campus to come by for an

- Informal follow-up discussion

Housing and Residential Life also continues to promote academic achievement and greater connection to faculty through informal interactions. In 2014, the First Year Success Center (Dayton Complex) achieved a higher GPA than the UNLV all-freshmen GPA (2.77 to 2.51). The academic partnership within Dayton has provided significant benefits for residents; there is continued success partnering with the Academic Success Center, as well as partnering independently with faculty partners to promote increased faculty presence within Dayton. Retention from fall 2013 to spring 2014 was slightly higher than non-residents.

The Alternate Admissions floor within Dayton Complex had a higher GPA than the UNLV all-alternate admissions average (2.74 to 2.18). One surprising data point was that this was the first year the Alternate Admissions floor GPA surpassed the all-freshmen GPA (2.74 to 2.51). Currently Dayton Complex offers academic programming and advising for students admitted to UNLV as an alternate admissions student. Programming includes tutoring, academic advising by advisors from the Academic Success Center and study skills programs on the floors.

Additional academic support to be implemented in 2015 includes having academic coaches provide students with course selection and referrals to appropriate UNLV resources. The program is a partnership between Residential Life and the Academic Success Center with Residential Life providing an office in Dayton complex for academic coaches to use.

In partnership with the Academic Success Center, Residential Life will begin to offer Supplemental Instruction (SI) to resident students registered for high risk courses each semester. SI meetings will be held in the residence halls by a graduate assistant acting as a group leader who is also taking the course to assist students with study skills, note taking, and exam and paper preparation.

Student Wellness is comprised of a counseling center; a health center, which includes a pharmacy, clinical lab, and a faculty/staff treatment center; a wellness promotion department; a women's center; the Office of Student Conduct; and the Disability Resource Center. Through combined leadership, fiscal management, and an integrated treatment approach, Student Wellness serves students more effectively and more efficiently than the individual departments could do alone. Our commitment to meeting the holistic needs of the UNLV community unifies our wellness, educational, and access efforts.

New initiatives include:

1. Student Wellness will increase student payment options for health, counseling and pharmacy services by accepting outside insurance payment in addition to the UNLV student health insurance plan. In addition, there will be an on-line portal linked to MyUNLV that will allow students to schedule appointments, view the results of laboratory tests, pay for items not covered by the health fee and to communicate securely with health care providers via the web.

2. Student Wellness will increase partnerships and initiatives with academic departments, including the School of Social Work and the Department of Physical Therapy, to increase students' access to health care and counseling services and to enhance collaborative professional learning activities and preceptorship opportunities for students engaged in these fields of study.

3. The Disability Resource Center will implement a new electronic records and tracking system to improve the ease and efficiency of providing accommodations to UNLV students with documented disabilities. The new system will enhance student interaction with DRC

documented disabilities. The new system will enhance student interaction with DRC portal for students to access their accommodations allowing for a seamless integration into classroom or experiential settings. DRC will more accurately capture data on student's access to accommodations therefore expanding the possibility for studying the measure of success achieved by students who maintain accommodations at UNLV.

4. The Department for Wellness Promotion will develop and implement numerous programs:

    a. An accessible application via iTunesU (or a similar program) for UNLV students to access accurate, evidence-informed health information, campus resources and engage in educational programming.

    b. The Department for Wellness Promotion will engage in a campus partnership with the UNLV Nutrition Center to expand dietetic student internship, practical experience and research opportunities.

    c. The Department for Wellness Promotion will lead a campus-community partnership with the UNLV Nutrition Center, Campus Recreational Services, School of Community Health Sciences and the American Heart Association to implement a cardiovascular health awareness initiative. The initiative may include social networking, social norms campaigns, environmental installations, educational programming (live and virtual), policy development, research opportunities, and expansion of on-campus opportunities for physical activity and healthier food options. Through this partnership, UNLV will receive recognition as lead campus in cardiovascular health awareness via the Partnership for America: Healthier Campus Initiative.

    d. The Department for Wellness Promotion will implement a 1-credit PEX activity course for Peer Education Leadership. Students successfully completing the course will be eligible for the BACCHUS Initiatives (collegiate peer education program) of the Student Affairs Administrators in Higher Education (NASPA) Certified Peer Educator Certification and will work with wellness promotion professional staff to develop, implement, assess and advocate for evidence-informed and theory-based health and wellness activities to their peers on campus.

    e. Achieve American Psychological Association accreditation for the doctoral training program.

    f. Collaborate with a broader range of academic programs that train graduate students in the mental health profession to complete their practicum or clinical training at our center. The academic programs include clinical psychology, marriage and family therapy, counseling education, and social work.

    g. Achieve International Association Counseling Services re-accreditation of Counseling and Psychological Services (CAPS) to recognize the quality of services we offer our students.

    h. Create a psychiatric clinic that would bridge mental health services between the Student Health Center and CAPs. This psychiatric collaborative will provide quality services that is more accessible to a broader student population.

    i. Establish a comprehensive mental health awareness and suicide prevention program that will serve to reduce the risk of student suicide and create a safety network of peers, faculty, and staff members. This would involve training community members

to have the awareness to recognize students in distress, have the skills to address and assist students by referring them to CAPS services.

5. Jean Nidetch Women's Center will enhance comprehensive campus-based advocacy programs for sexual assault, domestic/dating violence and stalking through increased visibility of services and programs while maintaining inclusion of marginalized communities and compliance with federal mandates. It will also institute university-wide bystander intervention through a researched program, Green Dot, to engage critical mass through education and skills practice in proactive behaviors and sustained behavior change resulting in violence reduction.

6. The Office of Student Conduct will establish a comprehensive Academy Integrity Initiative encompassing promotion of Academic Integrity, prevention of Academic Misconduct, and the implementation of the revised Student Academic Misconduct Response Policy. Components of this initiative include: the hiring of a new Administrative Faculty member that is 50% funded through the Vice Provost for Academic Affairs to begin July 1, 2015; collaborative development (with Online Education) of a comprehensive online program with promotional, preventative, and detection components; re-establish active membership in the Center for Academic Integrity for promising educational and assessment practices; develop and implement an assessment strategy to each component to measure effectiveness of promotion, prevention, and detection components to aid in student retention and matriculation; enhance robustness of assessment of each educational response sanction to increase achievement of intended learning outcomes.

    The office will continue the development and functionality of the Student Conduct Database to increase the assessment of and increased learning outcomes in core areas of the office's mission aiding in student retention and matriculation, including increasing student awareness of their rights and responsibilities; increasing awareness of the effects and impact of their behavior (on themselves and others); increased awareness and utilization of university and community resources; improve specificity of reports in order to measure recidivism of student behavior cases within diverse student populations for targeted education and response programming.

7. The Center for Academic Enrichment and Outreach houses a suite of federally-funded college opportunity programs that provide direct support services for students and adults from underrepresented backgrounds in their pursuit of a college degree. Annually, through the TRiO and GEAR UP grants, the center provides over 30,000 of southern Nevada's most needy students and adults with the educational, logistical and financial support and motivation to not only complete secondary schooling, but also to succeed in postsecondary programs. Eligible participants receive academic tutoring, academic and career counseling, mentoring, financial guidance, assistance preparing for college entrance exams and completing college admission applications, opportunities for research, as well as other supports necessary for educational access, retention and graduation.

    The Center for Academic Enrichment and Outreach's Tier One Characteristics and Data:

    -   Since 2001, the center has brought in $149.5 million of federal funding and $129 million of match contributions to Southern Nevada. For fiscal year 2015, the center is operating on $11 million of federal funds and $7 million of match contributions.

- Since 2000, the center has served 184 Ronald E. McNair Scholars, of which 21 earned a doctoral degree, 54 completed a masters, and 91 enrolled in a graduate program.

- Over the past two years, two of the center's participants were designated as National Merit Scholars.

- Within the student support services program, 69% of the first-year freshmen graduate from UNLV within six years.

- Over the past two evaluation periods, the center has been awarded a "Highly Achieving" designation in its mission and goals, which is the highest designation granted by the UNLV Council on Centers, Institutes, Museums and Laboratories.

The center will continue to pursue funding for additional offerings in the McNair Scholars Program, the Upward Bound Math and Science Center, Educational Talent Search, Student Support Services, Adult Educational Services, TRIO Training, GEAR UP, and other education related projects (Title III, NSF, and LSAMP).

8. UNLV Police Services was in the process of entering into a partnership in 2013 with the International Association of Campus Law Enforcement Administrators (I.A.C.L.E.A.) to apply for accreditation of the department's operations. Due to the fact that I.A.C.L.E.A.'s accreditation process went through a restructuring process last year, it was decided that application should be delayed until 2014 when the new guidelines are issued. I.A.C.L.E.A. accreditation represents the highest level of approval a university law enforcement agency can receive in the industry. Not only will gaining accreditation demonstrate the level of professionalism found in the department, it will also mean that the department is providing the best law enforcement services available based on the "best practices" standards found in the field.

III. Research Initiatives

As a comprehensive, doctoral-degree-granting research university, UNLV supports research, scholarship, and creative activity in all of its academic programs. The university holds the Research University/High" (research activity) designation from the Carnegie Foundation for the Advancement of Teaching. Last year, it established the Tier One Initiative designed to advance the institution to the list of top 100 American research universities among Carnegie's Research University/Very High (RU/VH) rankings. In order to work toward achieving this distinction, UNLV will conduct a strategic planning process in 2015 and will place additional emphasis on advancing the university's research agenda.

The campus is committed to creating research excellence in areas of importance to Southern Nevada, the state, and the Intermountain West. As a result of the previous strategic planning effort conducted in 2007-08, the university developed the following research goals. Although new research goals will be developed in the upcoming strategic planning process, many themes below will likely remain relevant:

- Stimulate research and scholarship in regionally relevant and emerging areas that build the institution's national and international reputation;

- Contribute to economic development and diversification of the community, state, and region;

- Improve infrastructure and research services to faculty and staff;

- Increase research funding, technology transfer, and economic outreach;

- Bring to success major research initiatives such as CORE (Collaborative Research and Education), EPSCoR (Water-Energy Nexus program), Quantitative Health Sciences, and UASs (unmanned aerial systems);

- Promote the mutually beneficial interaction of graduate education and research;

- Enhance awareness of the value of research in the community and state.

A top priority for UNLV at this time is the creation of an allopathic medical school; it is anticipated that the school, once established, will have tremendous impact on the university research endeavor as well as the economy of southern Nevada. The school's total economic impact is projected at $1.2 billion per year within approximately 15 years' time; planning is underway for the first class to enroll in 2016-17.

UNLV continues to strive to create other high-quality, impactful academic programs, research, publications, and public service activities that address issues of critical importance to southern Nevada, the state, and the Intermountain West region. This includes research on unmanned aerial systems, water and the environment, clean energy, public health, biomedical research, transportation, aerospace and defense, and information technology across various sectors (e.g., gaming, health care, cybersecurity, and bioinformatics) to name a few. UNLV also conducts research on social, cultural, and economic issues associated with the populations and industries unique to the city of Las Vegas, including such issues as real estate, risk behavior, economic sustainability, public health, immigration, and social justice, among others.

UNLV will continue to focus its efforts on transformational, collaborative research that addresses community, statewide and regional issues, as summarized above. These are topics of critical importance and relevance to other rapidly urbanizing communities in the U.S. and other parts of the world, as well.

Toward that end, assuming adequate funding, UNLV plans to make targeted faculty hires, expand existing research initiatives, and increase sponsored program funding in the following areas:

1. Renewable energy, including battery technology

2. Quantitative Health Sciences

3. Unmanned aerial systems and robotics

4. Biomedical sciences

5. Public health & translational research

6. Sustainability, environmental science, and water resources

7. Radiochemistry

8. Geosciences

9. Information technology

10. Physics, materials science, and nanotechnology

    11. Transportation engineering and planning

One of the most important initiatives for UNLV over the next planning period will be the Collaborative Research and Education (CORE) initiative. CORE will support interdisciplinary and collaborative research and education that address contemporary societal, environmental, technological, and economic challenges of our community, while having national and global significance. Some examples of challenges that have local, national, and global significance include improved health of our community; energy security; information technology with application across various sectors; and regional, economic, and environmental sustainability. This will represent a new paradigm for conducting collaborative research and education on and off campus.

UNLV recently received $2.5 million from the state's Knowledge Fund for the following three initiatives: the UNLV Institute for Quantitative Health Sciences, the Center for Gaming Innovation, and Unmanned Aerial Systems. These initiatives will be pursued in the interest of using Knowledge Fund dollars to expand and bring depth to research endeavors in these three areas. The purpose of the Knowledge Fund, which was created by the Nevada Legislature, is to promote research and the commercialization of that research in areas the state has targeted for economic growth. In the next planning period, the university will continue to hire faculty to flesh out research efforts in the funded subjects and explore new avenues for economic development relating to them.

UNLV also plans to continue and expand its statewide collaborations with the University of Nevada, Reno and the Desert Research Institute. Current efforts are focused in the areas of regional hydrology and the National Science Foundation EPSCoR initiative on the water-energy nexus for the region. Another statewide collaborative effort includes a major initiative on Unmanned Aerial Systems and Cybersecurity.

Despite funding challenges, the university strives, as a key element of its strategic plan, to grow its research portfolio in the coming years by expanding its sponsored program funding beyond the $100 million level. This will be through growth in strategic research areas and development of collaborative research efforts.

UNIVERSITY OF NEVADA, RENO

Strategic Themes and Objectives

The university is currently finalizing its Strategic and Campus Master Plans for the years 2015-2021. These processes began in February 2014, with engagement of a broad range of UNR and community stakeholders. The services of a consultant, Van Woert-Bigotti, have been used in the planning processes. The Strategic Plan draws upon our current (2009-15) plan and the 2013 self-study document prepared for the Northwest Commission on Colleges and Universities (NWCCU). It is aligned with the design elements of the Master Plan being completed at the same time. The 2015-2019 Strategic Plan will be a "living plan" that will be revisited on a regular basis and update as appropriate.

During 2015-19 the University of Nevada, Reno will focus its efforts on the following Core Themes:

Theme 1 – Learning: Prepare graduates to compete globally through high-quality undergraduate and graduate degree programs in the liberal arts, sciences, and selected professional programs.

Theme 2 – Discovery: Create new knowledge through basic and applied research, scholarship, and artistry in strategically selected fields relevant to Nevada and its role in the wider world.

Theme 3 – Engagement: Strengthen the social, economic, and environmental well-being of people by engaging Nevada citizens, communities, and governments. Be formally recognized as setting the standard for land-grant universities in addressing critical societal issues and contributing to the public good.

Research and Innovation Initiatives

The **vision** of the research and innovation enterprise at UNR is to create an environment that will enable the faculty and students to excel in their research, scholarly, creative and innovative activities, and enhance the status of the University of Nevada, Reno as an internationally recognized research university.

The **mission** of our research and innovation activities will be aligned with the goals of the University's Institutional Strategic Plan (http://www.unr.edu/provost/strategic-and-master-planning-2014) and with the needs of the region and the state.

The Office of Research and Innovation supports the university wide goal to attain the Research University/Very High Carnegie classification by 2021 by adopting the following actions:

- Support world-class research, innovation, and commercialization at the University.
- Develop major existing and emerging research areas.
- Provide faculty, students, and staff with the highest quality administrative services and a competitive infrastructure that will enable them to excel in their research, scholarly, and artistic endeavors.
- Minimize burden on faculty.
- Foster ethical conduct in research and adhere to all regulatory requirements
- The activities of the Office of the Vice President for Research and Innovation will be driven by our core values: integrity, the pursuit of excellence, fairness, respect, and collaboration.

UNR will aim to provide our faculty with streamlined, organized, and efficient access to all information and processes necessary to conduct research and facilitate innovation and entrepreneurship at the University.

Implement Structural Changes in the Office of Research and Innovation:
- The Office of Research and Innovation will be a faculty-first service organization; Adopt the Anticipate, Communicate, Train (ACT) approach.
- Conduct a national search for the Associate Vice President for Research Development
- Conduct a national search for the Assistant Vice President for Enterprise and Commercialization.
- Recruit a Director for Undergraduate Research.
- Create and foster an environment that will enable innovation among faculty, staff and students.
- Invest in electronic software to manage and organize business transactions related to research – pre- and post-award, IRB, conflict of interest.
- Establish a University of Nevada, Reno Research Foundation (UNRRF).

Implement programs to enhance faculty competitiveness
- Competitive proposal development initiatives
    a. Grant-writing seminars and workshops
    b. Proposal development assistance (budget development, external reviews of proposals, editorial assistance, graphics assistance)
    c. Grant-writing Mentors Program for junior faculty
    d. Building relationships with regional companies/industry – partnering on large funding opportunities
    e. Research Enhancement Grants competitive program to enable re-submission of competitive proposal
- Enhance research infrastructure
    a. Equipment grants to be competitively awarded to faculty for enhancing instruction and research
    b. Support equipment grant applications, such as NSF Major Instrumentation Grant, DURIP, etc.
    c. Establish a Shared Research Facility

- Streamlining OVPRI policies and procedures
  a. Streamline existing policies and develop new policies that promote research and ethical conduct of research on campus. Examples: Cost Share Policy, Conflict of Interest Policy, New Export Controls Policy, Effort Reporting Policy, PI Policy with clarification on Adjunct Faculty, "Last-minute-proposals" guidelines
  b. UNSOM – Las Vegas
      i. Forged a new partnership with UNSOM-LV; Quarterly visits
      ii. New procedures instituted to address issues raised by UNSOM LV faculty regarding clinical trials
- Research Integrity Office- Streamlining procedures and processes
  a. Electronic systems for IRB protocols and Conflict of Interest forms
  b. Prepare for the AAHRPP accreditation

Research Communications
- New VPRI website
- Industry Portal on the VPRI website

Enhance innovation and commercialization opportunities on campus
- Support the Innovation space at the DeLaMare Library for students, faculty, staff, and community.
- Establish the Innovation Center in mid-town (the Sinclair Building).
- Establish and award three Innovation Awards--Early Career Innovator, Innovator, Student Innovator.
- Make the Redfield campus available to interested companies who will work with UNR faculty and students.
- Significantly increase number of start-ups and spin-out companies on-campus and in the region.

Other Research Initiatives
- Enhance interdisciplinary research and graduate teaching programs – Collaboratively with the Graduate School.
- Help establish world-class faculty-driven research centers and institutes.
- Foster International research programs.
- Faculty Travel Grants – Competitive and in three phases.
- Support and enhance Undergraduate Research.

Information Technology

- Increase the strategic utilization of current and next generation technologies such as cloud services, virtualization, storage and backup consolidation, and high performance computing for on-premise and remote applications that facilitates the digital University campus.
- Enhance the University's adoption of cyber security best practices and standards; foster a culture of security awareness and communication among all organizations to improve compliance with governmental and industrial regulations for information management and security.
- Strengthen the sustainability and reliability of University critical IT services by implementing and testing IT disaster recovery and business continuity policies and procedures.

- Gather and share quantifiable metrics to University IT services as part of the enhanced focus to improve quality and professionalism of IT services on campus.
- Work with University senior management to implement a systematic funding structure to ensure the timely refresh of critical technology infrastructure that serves as the backbone for all current and future business needs of the University.
- Emphasize on the enhanced administrative coordination and technical knowledge sharing among all IT staff within University units and the UNR IT.

Division of Health Sciences (DHS) and the University of Nevada School of Medicine (UNSOM):

- Develop full, four-year school of medicine in Reno in collaboration with Renown Health and other hospitals and healthcare institutions, with continued statewide outreach to Las Vegas and rural communities for medical student clinical teaching capacity and expanded residency and fellowship training.
- Make major investments in clinical and translational (C & T) research infrastructure in both Reno and Las Vegas to support a significant increase in funded C & T research, including capitalizing on a major NIH grant that supports such infrastructure and is based at University of Nevada, Las Vegas in close partnership with UNSOM.
- Expand B.S.-to-D.N.P. program in the school of nursing.
- Expand graduate student programs at both M.P.H. and Ph.D.
- Explore development of new, advanced standing on-line M.S.W. program to expand rural social work training.
- Develop new program of specialty clinical services for older adults as part of the Sanford Center on Aging.
- Continue to support the consolidation and coordination of the Health Sciences complex of the University and address the major medical and health care challenges in Nevada.

Campus Facilities Master Planning:

- Complete an updated University Master Plan for presentation and approval by the Board of Regents in 2014.
- Move Extended Studies Division to the Redfield Campus by January 2015 and reallocate vacated space to other campus units.
- Resolve new standards for both vehicular and pedestrian way-finding signage throughout campus and secure funding to implement these new standards.
- Develop a plan for expanding and realigning university office and research space in order to meet needs as the university grows, including:
    ◊ Complete design plans for a new engineering building.
    ◊ Complete plans for renovation of Palmer/Scrugham as well as select labs in Chemistry and Leifson.
    ◊ Examine current and possible future uses of Valley Road properties.
- Renovate Thompson Hall and move Liberal Arts programs into the renovated building by August 2016.
- Finalize plans and financing for the phased construction of three new residential halls in order to increase the total capacity of on-campus housing to 3,000 students.
- Complete construction of the new William Pennington Student Achievement Center by January 2016 that will house a comprehensive academic success operation for students, providing access to a wide variety of student support services.

- Work with Intercollegiate Athletics to continue planning around various facility-related issues to include a practice facility for the men's basketball team, outdoor and indoor tennis courts, construction of a rifle team facility, possible construction of a new multi-purpose indoor practice facility, renovation of MacKay Stadium seating, and possible construction of a new Stadium Club.
- Proceed with plans for completion of construction of the E. L. Wiegand Fitness Center by January 2017.
- Determine cost and feasibility of renovations to the Lombardi Recreation Center for use by academic departments, Intercollegiate Athletics, and campus recreation.
- Develop a plan for expanding childcare services for faculty, staff, and students.
- Develop plans for use of Lincoln and Manzanita Halls.
- Demolish White Pine Hall and begin construction of a new dormitory.

Academic Programs

The following programs were described in department and college strategic plans for the years 2014-2019 and beyond. Planning for these programs is at varying stages within the departments. Depending on the planning stage for these programs, the date of implementation, estimated cost and funding sources may be unknown.

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Ph.D. in Epidemiology	Provides a doctoral education in epidemiology with options for a focus in the public health fields of informatics or environmental epidemiology. Continues the preparation of the School of Community Health Sciences for accreditation as a School of Public Health.	2015	$132,000 from existing state dollars with a request for 1 new GA position.	None
Ph.D. in Social Behavioral Health	Provides a doctoral education in social behavioral health with a focus in the public health field of social determinants of health. Continues the preparation of the SCHS for accreditation as a School of Public Health.	2015	$132,000 from existing state dollars with a request for 1 new GA position.	None
Online Masters of Social Work	The Online MSW degree program is focused on reaching out to rural Nevada to help increase the workforce in Licensed Clinical Social Workers.	Fall 2015?	The online MSW program will operate as a self-sustaining program wherein a fee of $400-$500 per course will be charged to students. We will utilize a combi-nation of regular faculty and LOA's to teach the courses. The fees will allow us to hire the LOA's and classified staff to support the program.	

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Psychiatric-Mental Health Nurse Practitioner Program	Psychiatric Mental Health Practitioner (PMHNP) programs prepare advanced practice nurses to care for individuals and families with behavioral and mental problems. This specialty program of study prepares graduates to assess, diagnose, intervene and provide follow up to facilitate on-going levels of wellness.	Fall 2015?	The resource needs for the Psychiatric-Mental Health Nurse Practitioner program will be met by reallocation of existing teaching assistantships and classified staff support and already approved differential fees for additional faculty needs.	
MS/PhD in Integrative Neuroscience	This interdisciplinary program (offered jointly by Psychology/ College of Liberal Arts with Biology/College of Science) was approved in pre-proposal process in 2011-2012, and now is being developed as a new program proposal overseen by the Dean of the Graduate School.	Fall 2015	Under negotiation (currently estimate 6 graduate assistantships at $15,500 plus fringe each to start, plus director stipend of $4,000 per year, half time classified staff support). Strategic hires in recent years have built faculty resources to support the program.	Proposer anticipates that most graduate assistant positions will be funded through faculty research grants after a three-year initiation phase.
MA in Gender, Race and Identity	The program has received required approvals but was not launched due to lack of funds for teaching assistantships.	Fall 2017	Two graduate assistantships at $15,500 plus fringe each.	None
BA in Dance	The proposed program is under revision and further development after NSHE BOR new-program moratorium and college curricular/budget review. The revised proposed program will prepare students for dance careers in areas of performance, choreography, and production, and advanced study/ scholarly work in dance. While the proposal was approved all the way to the NSHE level, departmental changes of emphasis and available faculty dictate changes substantial enough to consider this as a new proposal.	Fall 2017	Unknown	

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
MFA in Creative Writing	This is a professional degree that establishes emphases, in its curriculum, on both the student's writing and graduate-level scholarship in English. The degree (approved by the NSHE BOR, summer 2014) will offer a three-year course of study, incorporating coursework in literary history, critical theory, and literary craft, as well as requiring a core series of rigorous workshops centered on the development of the students' creative work.	Fall 2015	Reallocation of existing faculty, teaching assistantship, and classified support.	None
DMA	An applied doctorate in musical arts is under depart-mental discussion and curriculum development for submission as a pre-proposal. This is an academic degree with a curriculum that establishes emphases, in its curriculum, on both the student's performance and graduate-level scholarship in music. The degree would offer a 3-year course of study, incorporating coursework in theory, musicology, and performance practice, as well as requiring applied performance.	Fall 2017 at the earliest	Before implementation of this new degree plan, the music department would need two tenure-track hires in support of the curriculum: a music theorist/composer and a musicologist/ ethnomusicologist.	Music does not have outside funding sources at this point.
Ph.D. in Mathematics	A program that will prepare professional mathematicians for careers in research, teaching, finance, and industry.	Fall 2016	Unknown – Faculty in the Department of Mathematics and Statistics will develop the Ph.D. program based on their MS program and the current research activities of the faculty.	Existing faculty will initiate the degree program.
Ph.D. in Statistics	A program that will prepare professional statisticians for careers in research, teaching, finance, and industry.	Fall 2016	Unknown – Faculty in the Department of Mathematics and Sta-tistics will develop the Ph.D. program based on their MS program and the current research activities of the faculty.	Existing faculty will initiate the degree program.

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
B.S. in Biomedical Engineering	The goals are to initiate (i) formal training of Engineering students in the field of Biomedical Engineering (BME), and (ii) recruitment of premed students; thus, improving enrollment and empowering students with new career options. The Department also seeks to work closely with the medical school for promoting an MD-Ph.D. program.	2014-2015	Estimated starting cost is based on initiating a (i) BioMem and Bionantochnology lab, (ii) Tissue engineering Lab, and an (iii) quantitative imaging Lab: ~$750,000 Other labs, such as biomedical informatics and microelectronic interfaces, will leverage existing laboratories. The teaching Lab for BME students will include "milestone projects" such as EE 490/491. Two additional positions and associated start up packages will be needed (starting salaries $95K + fringe, approximately $120K per year).	None at this point; however, BME faculty will develop proposals to complement internal funding.
Ph.D. in Engineering Education	Provides a doctoral education in engineering education with a focus on training, recruiting, and retaining the next generation of engineers and engineering educators. Furthers the strategic initiatives of the College of Engineering and the University by increasing the economic opportunities for the local and regional communities.	2015	First two years will need $41,862 (assistantship + fringe + tuition) for each of 3 new doctoral GA positions. After the second year we will need $114,300 salary per year + one time startup funds of $250,000 for each of 2 new faculty lines (1/ every 2 years until filled).	None at this point. Faculty will write proposals to obtain additional funding.

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
New: MS and PhD in Plant Science	The Department of Agriculture, Nutrition and Veterinary Sciences (ANVS) is planning to establish a MS/PhD program in Plant Science. Students enrolled in this program will receive graduate training in plant production related disciplines including agronomy and horticulture. The rationale for this new program is that graduate students are needed to support the research and teaching mission of ANVS.	2016	Under discussion	None
New: MS and PhD in Animal and Range Science	The Department of Agriculture, Nutrition and Veterinary Sciences (ANVS) is planning to establish a MS/PhD program in Animal and Range Sciences. Students enrolled in this graduate program will receive graduate training in areas related to livestock production and rangeland management. The rationale for this new program is that graduate students are needed to support the research and teaching mission of ANVS. The program will also provide post-baccalaureate training for students needing additional academic preparation for admission to veterinary school.	2016	Under discussion	None
Expansion of Existing Program	The Academy of Nutrition and Dietetics will be requiring a MS degree for all students pursuing certification as registered dieticians. As such the Department of Agriculture, Nutrition and Veterinary Sciences is proposing to expand the existing MS Nutrition degree program to address this new requirement.	2015	Under discussion	None

The process for approving new programs at the University of Nevada, Reno includes a pre-screening process to review the program in terms of available resources, program viability, and connection to University or NSHE strategic plans and goals. If approved, a detailed proposal is prepared and is reviewed by relevant college and department committees, the University Courses and Curricula (UCC) Committee, and, if a graduate program, by the Graduate Council. Once a new program proposal has been reviewed and approved at all appropriate levels, it is brought to the NSHE Academic Affairs Council and the Board of Regents' Academic and Student Affairs Committee for approval. The institution's accrediting body, the Northwest Commission on Colleges and Universities, also receives the University's application for approval of any new degree and certificate programs in order to approve the change as minor or substantive.

As a result of this rigorous review process, the date of implementation is often an estimate; however, it is expected that all programs listed will be brought for consideration during the planning horizon of 2015-19. All programs at the University that generate student FTE are supported by state-appropriated funds through the higher education funding formulas and no new enhancement funds would be requested to support any of these programs.

Graduate School

- Establish a pipeline to Nevada State College to increase the recruitment and retention of underrepresented students through the intensive GradFIT program experience.
- Increase the quality of graduate student applicants through a global digital recruitment campaign (involving Google AdWords).
- Establish an Office of Postdoctoral Affairs to enhance graduate students career opportunities.
- Increase the profile of graduate education on campus and in the community through competitions such as the Three Minute Thesis.
- Provide travel funding to increase graduate student attendance and participation at conferences and meetings.
- Provide professional development workshops for graduate students to increase success rate in competitive scholarship and fellowship applications.

Student Services

The following table summarizes the new UNR student services plans to implement in the period 2015-2019:

New Program Name	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Build the Pennington Student Achievement Center to bring student academic and personal support services under one roof	January 2016	$44,500,000	Private dollars FSA Debt Retirement
Expand undergraduate housing	Fall 2015 & Fall 2017	$90 million	Auxiliary
Establish a First Scholars Program to support up to 300 Gear Up freshmen not admitted to TRiO	Fall 2015	$25,000	None
Create a freshmen job fair the second week of school to employ new students on campus	Fall 2015	$2,000 annually	None
Build the E.L. Wiegand Fitness Center to promote healthy bodies and minds	January 2017	$46 million	Private dollars FSA Debt Retirement

NEVADA STATE COLLEGE

Strategic Objectives

As the first and only comprehensive state college in the Nevada System of Higher Education (NSHE), Nevada State College (NSC) places a special emphasis on the advancement of a diverse and largely under-served student population. In this role, the College emphasizes high-quality instruction, exemplary service, engaging learning experiences and innovation as a means to more efficient, effective outcomes in all corners of the campus.

NSC is dedicated to providing quality educational, social, cultural, economic and civic advancement to the citizens of Nevada. To this end, the college addresses the state's need for increased access to higher education through teaching practices and support services that promote the success of its largely first-generation, low income, under-represented student population.

The college strives to fulfill its mission by maximizing the quality and accessibility of a baccalaureate education. To address the former, NSC offers a learning experience characterized by personal attention, advanced technology, and exemplary teaching practices. To address the latter, NSC strives to maintain a comparatively low cost of education while meeting the diverse needs our student population by incorporating a wide array of course offerings that strategically integrate web-enhanced, online, and hybrid modes of instruction.

Guiding the pursuit and implementation of these and other endeavors for 2015-2016 are the following strategic objectives:

1. Increase student retention and degree completion, particularly among first-generation, under-represented students, by improving comprehensive academic support programs, freshman experience courses, advising programs, peer support initiatives, and overall student quality of life.

2. Expand the enrollment of students from first-generation and under-represented student populations by increasing recruitment, advertising, and NSC's presence in all under-represented communities, including area high schools and NSHE's two-year colleges.

3. Continue to pursue Hispanic Serving Institution status.

4. Continue to build the campus data infrastructure to enhance our reliance on assessment and evidence to drive institutional improvement, enhancements in customer service, and innovation.

5. Expand our efforts to intelligently integrate technology into our processes to enhance quality, maximize efficiency, and free people to invest their time and effort into activities that benefit uniquely from personal interaction.

6. Continue to develop innovative partnerships between academic and student affairs that provide students with the integrated, structured support needed to achieve their goals and meet our expectations.

7. Introduce creative curricular and scheduling solutions that increase graduation rates and decrease time to degree attainment.

8. Establish strong 2 + 2 programs and articulation agreements with incentives for students who have earned an associate's degree. Continue to build select 3+1 BAS degree programs with the community colleges.

9. Maintain affordability and administrative efficiency to ensure that students are able to afford a Nevada State College education.

10. Expand extramural funding needed to support the success of first-generation and under-represented students.

11. Expand student financial and scholarship services.

12. Redesign remedial placement practices and remedial/gateway courses to facilitate student skill-acquisition while simultaneously decreasing costs and time to completion.

13. Prepare students to serve and lead Nevada's workforce by fostering essential knowledge and skills through effective instructional practices, including the use of cutting edge technology, research or project-based curricula, and active learning techniques.

14. Create and strengthen partnerships that provide a synergistic and interdependent relationship with the Southern Nevada community, particularly in the creation of a robust internship program and the development of public-private ventures that leverage the usage of land on our 500-acre campus.

Academic Programs

The following academic programs will be pursued in the upcoming biennium.

- Bachelor of Science in Mathematics. No new dollars, faculty are already in place for existing Secondary Education Mathematics program and general education courses.

- Expand RN-BSN program to meet existing demand. No new dollars, faculty are already in place for the existing RN-BSN program.

- Significantly expand the full-time and part-time Bachelor of Science in Nursing programs. Approximately $900,000 in new faculty and student support positions, student fees.

- Establish a BAS in Allied Health. $85,000, one new faculty position.

- Establish a BA in Deaf Studies. $85,000, one new faculty position.

- Continue to expand Teaching English as a Second Language program. No new dollars, faculty are already in place for the existing program.

Student Services

During the next two years (2015-2016), Nevada State College will expand upon the following student service initiatives:

New Program Name	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Expand the Student Academic Success Center and academic advising to include more comprehensive advising, tutoring, supplemental instruction and structured learning assistance	2015	$172,000	None
Secure funding to expand student participation in intensive summer preparatory programs that foster learning communities, intensive mentorship and interaction with faculty, and utilization of student support personnel	2015	$225,000	Federal grant or Private funding
Expand career services center and structure courses and curricula to imbue students with functional and marketable skills that promote opportunities for career, graduate school, and personal success	2016	$75,000	Student Fees

Table Continued

New Program Name	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Expand financial aid available to students to support our unique mission	2015-2016	$100,000	Student Fees
Integrate tools that provide real-time success-orientated feedback to faculty and students (e.g., predictive analytics)	2015	$50,000	Student Fees
Secure advising software that will direct students along ideal degree-completion pathways with prescribed curricular sequences and automated scheduling	2015-2016	$75,000	Student Fees
Expand virtual and on-demand academic assistance opportunities, with particular emphasis on academic advising and student services	2015-2016	$100,000 per year	None
Provide enhanced pathways for students to enter graduate study at UNLV and UNR, with particular emphasis on underrepresented student populations	2015-2016	$30,000	Student Fees
Establish field courses, internships, and project-based courses that focus on community issues and facilitate meaningful interaction with community organizations	2015-2016	$100,000	Federal grant funding
Secure funding and develop programming to increase STEM teachers in Nevada	2016	$200,000	Federal grant funding

COLLEGE OF SOUTHERN NEVADA

Strategic Objectives

The College of Southern Nevada creates opportunities and changes lives through access to quality teaching, services, and experiences that enrich our diverse community. The goals, objectives, and strategies for 2015-2019 in Academic and Student Affairs include the following:

- Implement a streamlined and seamless intake process
- Offer classes on days, times and in the format most desired by students, while maximizing classroom utilization
- Provide effective developmental education to students
- Provide services to support successful completion of courses and/or programs
- Encourage students to complete their degrees/certificates in a timely manner
- Improve the quality of the workforce
- Evaluate and improve CSN's programs
- Build a transparent culture of accountability and evidence in all areas of the College
- Build a student body and workforce reflective of the diversity of CSN's service area

Academic Programs

The following programs are currently envisioned for potential development in the next four years (2015-2019):

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Fire Science Management BAS	This program will provide students the opportunity to develop their managerial skills and further compliment the technical skills they have already acquired. Students will complete 15 courses of upper division work that has been approved by the Fire and Emergency Services Higher Education model curriculum	Fall 2016	$65,000	Enrollment will be sufficient to establish the program. This will be offered as an online format.
Travel, Convention an Event Planning Certificate of Completion	This certification will provide an entry-level stackable industry credential to students pursuing careers in the travel, tourism and event planning industry.	Fall 2015	This program is already aligned with the associates of applied science degree and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.
Entry Level Certificate of Completion in Bookkeeping	This certification will provide an entry-level stackable industry credential to students pursuing careers in the bookkeeping industry.	Fall 2016	This program is already aligned with the Associates of Applied Science Degree and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.
Certificate of Completion in Emergency Management Administration	This certification will provide a stackable industry credential to students pursuing careers in the Emergency Management.	Fall 2017	This program is already aligned with the Associates Degree in Criminal Justice and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.
Certificate of Completion in Firefighting	This certificate if for those students who successfully complete a College of Southern Nevada certified Fire Academy through one of the professional firefighting agencies in Clark County. This certification will provide a stackable industry credential to students pursuing careers in firefighting profession	Fall 2015	This program is already aligned with the Associates of Applied Science in Fire Technology Management and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.

Academic Programs—continued

The following programs are currently envisioned for potential development in the next four years (2015-2019):

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Entry Level Administrative Assistant Certificate of Achievement	This program will provide the training necessary for undergraduate students to prepare for employment in the work sector of an office environment	Fall 2016	This program is already aligned with the Associates of Applied Science Degree in Computer Office Technology and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.
Entry Level Certificate of Completion in Accounting	This certification will provide an entry-level stackable industry credential to students pursuing careers in the accounting industry.	Fall 2017	This program is already aligned with the Associates of Applied Science Degree in Accounting and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.
Certificate of Completion in Casino Dealing	This program is designed for students aspiring to obtain entry-level Table Games Dealing employment. The Certificate of Completion in Casino Dealing will equip students with the technical and theoretical skills necessary to remain competitive in the casino workforce and will adequately prepare students to successfully pass an interview and audition in a casino operation.	Fall 2016	This program is already aligned with the Associates of Applied Science Degree in Casino Management and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.
Certificate of Completion in Table Games Management	This certificate is designed for students aspiring to advance their career from Casino Dealer to Casino Supervisor. The Certificate of Completion in Casino Table Games Management will equip students with the theoretical knowledge and leadership skills necessary to remain competitive in the casino management workforce.	Fall 2016	This program is already aligned with the Associates of Applied Science Degree in Casino Management and consequently should have negligible additional cost.	Current equipment and facilities are sufficient to establish the program.

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Logistics – AAS	This program will be developed in collaboration with the Worforce and Economic Development Sector Council on Logistics.	Fall 2017	$75,000	State Funds or Grant opportunities
Occupational Therapy Assisting – AAS	This program will be re-vitalized to provide a workforce for Nevada of Occupational Therapy Assistants	Fall 2016	$100,000	State Funds, Grants, Foundations, or Collaborations with Business and Industry

Student Services

The following new student services are potentially planned for the next four years (2015-2019):

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Counseling and Psychological Services	Hire Director of CAPS/DRC. Expand CAPS Practicum program on all three campuses.	2015	$83,340 - $92,981	State Funds
Student Affairs Online	Enhance and expand available online and mobile-friendly services for students	2018	Not yet determined	State Funds
Biennial needs assessment	Assess current student needs through focus groups and Student Voice surveys. Results to be used to modify existing services, planning, and addition of new services as needed,	2017	Not yet determined	State Funds/ Foundation grants
Development of a comprehensive recruitment plan	Develop a robust recruitment plan to target all populations of students for enrollment at CSN	2015	Staff time	
Hispanic Serving Institution	Provide the appropriate infrastructure and support for the increasing number of Hispanic and/or limited English speaking students	2015		Grants

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Expansion of WC Testing Center House	Expand to evening and weekend hours, as needed, to meet student demand	2015	Pending demand, minimally we would use soft money to pay for increased hourly wages, at most for this plan period might be the addition of an AA I or II position	Status funds, revenue account
Enhancement of Career & ReEntry services	Expand workshops & events to promote career preparation and job-seeking skills	2018	Increase annual operating budget by $5000 to pay for materials related to these expenses	State funds, donation, employer sponsorship
Mandatory Matriculation	Expand the ATD Mandatory Matriculation Policy to all incoming, new to CSN students	Fall 2015	Not yet determined	State Funds
Student Ombudsman Office	Development of an office to be responsible to triage, refer, and categorize all student complaints in an effort to provide information on institutional improvement	Fall 2015	Reassignment of an existing professional employee to assume these duties	State Funds

GREAT BASIN COLLEGE

Strategic Objectives

Great Basin College presented its 2014-2021 Strategic Plan to the NSHE Board of Regents at its meeting of June 5-6, 2014. The Strategic Plan presented the GBC vision for economic sustainability through future growth, as administered through its mission and core themes. The 2015-2019 Academic Master Plan presented here lists a focus of academic programs and student services derived from the approved long-term institutional strategy.

GBC Mission Statement

Great Basin College enriches people's lives by providing student-centered, post-secondary education to rural Nevada. Educational, cultural, and related economic needs of the multicounty service area are met through programs of university transfer, applied science and technology, business and industry partnerships, developmental education, community service, and student support services in conjunction with certificates and associate and select baccalaureate degrees.

Core Themes
- *Provide Student Enrichment*
- *Build Bridges and Create Partnerships*
- *Serve Rural Nevada*

GBC Vision

While maintaining the strength of its community college mission, Great Basin College will remain an economically sustainable institution through growth, by increasing enrollment, expanding its service area, offering more laddered bachelor's degrees and becoming nationally known for its innovative distance delivery systems, all leading it to be recognized as an indispensable and evolving provider of post-secondary education in rural Nevada.

The vision of programs and services identified in this plan fulfill GBC mission and core themes. Importantly, they address the educational and training needs as identified by Nevada and fulfill the national agenda of a better educated public and a well trained workforce.

Academic Programs

The former GBC Academic Master Plan submitted for 2013-2016 emphasized the strengthening and expansion of existing programs, particularly of technical programs. Seven of nine objectives listed in that plan for the past two years were successfully completed.

The new plan presented here for 2015-2019 primarily seeks efficiencies by building on opportunities to align with existing programs. Enrollment capacity within existing courses will be used to create parallel programs with significant overlap of courses, but which address different student audiences. The additional cost for adding these programs will be minimal while adding significant student opportunities. Also presented are new programs identified as having need and opportunity. GBC plans to remain aggressive in the delivery of programs through distance technologies.

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Continually evaluate the changing needs for new and existing programs	GBC's mission is to respond in a timely manner to the needs of the constituents of the GBC service area	2015-2019	As needed and can be afforded	Grants and private funding are always sought where and when possible
Expand and maintain mine and industry work-force training programs	Continue to evaluate opportunities for expanding contract training programs with mining companies and other businesses and industries	2015-2019	Minimal, mostly related to facilities; staff is in place	Largely self-funded through contract agreements
Expand the types and numbers of skills certificates granted (<30 credits)	Continually seek opportunities to develop certificates with employability value	2015-2019	Minimal, utilizing existing courses and instruction	Some may be offered through contract instruction
Evaluate and develop opportunities to provide programs fully available online	Distance delivery through the online system remains a key strategy to offer more student opportunities in a region of widely dispersed and limited population	2015-2019	Base costs covered with existing infrastructure; other costs through student fees ($10,000/yr additional)	Student fees charged for online courses cover expanded online delivery

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Engage high schools within the service area for cooperative educational opportunities	The two foci are to address college readiness of graduating seniors and to offer dual credit and similar opportunities to prepared students	2015-2019	Minimal new cost, primarily administrative	
Address issues in remedial education	Continue working on strategies to increase incoming college readiness and timely remediation of those not prepared	2015-2019	Minimal new cost, primarily administrative	
Locate sites and coordinators for instructional delivery within new service area	After receiving four additional service area counties, physical locations and site coordinators must be identified to develop instructional delivery	2015	$7500/year	
Expand AAS Nursing with cohort programs in Pahrump and WInnemucca	Current TAACCCT Grant application includes funding for this program expansion	2015	$1.1 million 3-year startup; $175,000/year thereafter	Fully dependent on receiving TAACCCT grant funding for startup
AS in field of Agriculture or Natural Resources	Develop program with new focus to replace terminated Agriculture program	2015	No new cost, only existing state funding stream	
Develop parallel pathway leading to BA English	Structure an English degree to run parallel to the existing English endorsement in BA Secondary Education; will require a specific AA degree for admission	2015	No new cost; existing English instruction has capacity for more upper division enrollment with existing state funding	
Develop parallel pathway leading to BS Biology	Structure a Biology degree to run parallel to the existing Biology endorsement in BA Secondary Education; will require a specific AS degree for admission	2015	No new cost; existing Biology instruction has capacity for more upper division enrollment with existing state funding	

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
AAS EMT-Paramedic with Certificate	GBC currently offers EMS courses for certificates only; this will expand the program and address a critical rural need	2016	$150,000/year	Potential grant funding to operate in existing, equipped facility in Humboldt County
Develop alternative pathway leading to BA Social Science	Split the Social Science emphasis from the existing BA Integrative Studies degree to create a stand-alone degree; will require a specific AA degree for admission	2016	No new cost; existing Social Science instruction has capacity for more upper division enrollment with existing state funding	
Develop alternative pathway leading to BA in Natural Resource field	Split the Natural Resource emphasis from the existing BA Integrative Studies degree to create a stand-alone degree in conjunction with the revised Agriculture/ Natural Resources Associate degree; will require a specific AS degree for admission	2016	No new cost; existing Natural Resource and Agriculture instruction has capacity for more upper division enrollment with existing state funding	
Expand Land Surveying/ Geomatics BAS degree	Obtain ABET accreditation for wider program acceptance, expand online program	2016	$100,000/year	Grants and support of professional organizations being investigated
Develop parallel pathway leading to BA Graphic Arts	Structure a Graphic Arts degree to run parallel to the existing Graphic Communications emphasis of the BAS, to be available fully online; will require an AA degree for admission	2017	No new cost; existing Graphic Communications instruction has capacity for more upper division enrollment with existing state funding	
Convert AAS Nursing and RN-BSN programs to one 4-year BSN program	With current trends in Nursing, the ADN program will be discontinued and the RN-to-BSN program will become a freshman admission BSN program	2018	No new cost, only conversion of the format of the existing program	Grant funding will be sought to support the transition

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
BA Industrial Hygiene/ Safety	A fully online program in this field would have applications in many industrial settings and in a wide geographic area; will require an AA or AAS degree for admission	2018	$120,000/year	Grant funding and industry support will be sought
BA Healthcare Management	A fully online program in this field would have applications in many healthcare settings and in a wide geographic area; will require an AA, AS, or AAS degree for admission	2018	$120,000/year	Grant funding and support from healthcare providers will be sought

Student Services

To support academic programs in alignment with the GBC Mission and Core Themes, Student Services is committed to student success and access to support services. Support services provided are not dependent on students' zip codes. Services are available to ALL students whether they are enrolled in live or interactive video at the main campus, centers, satellites or taking classes completely online.

New Program Name	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
1.0 FTE Student Recruiter/ Advisor for GBC areas not served by a Center and for out-of-state students in SARA approved states	2015	$62,000	Unknown at this time
1.0 FTE Security Officer for the Elko campus	2015	$50,000	Unknown at this time
1.0 FTE Security officer for the Pahrump center	2016	$50,000	Unknown at this time
1.0 FTE Advisor	2016	$85,000	Unknown at this time
1.0 FTE Adult Learner Concierge (sustain previous grant funded position)	2016	$62,000	Unknown at this time
1.0 FTE Pathways Specialist (sustain previous grant funded position)	2016	$56,500	Unknown at this time
1.0 FTE Student Retention Specialist	2016	$85,000	Unknown at this time
1.0 FTE Student Life/Student Program Manager	2017	$56,500	Unknown at this time
Housing – initiate planning options for replacement of student housing	2017-2018	Unknown	Lease-to-buy options to be considered using housing fees

TRUCKEE MEADOWS COMMUNITY COLLEGE

Vision: Truckee Meadows Community College creates the future by changing lives.

Mission: Truckee Meadows Community College promotes student success, academic excellence and access to lifelong learning by supporting high-quality education and services within our diverse community.

Values: The values upon which Truckee Meadows Community College bases its mission and vision statements are the principles, standards and qualities the college considers worthwhile and desirable. Truckee Meadows Community College is committed to:

- Student access and success
- Excellence in teaching and learning
- Evidence of student progress through assessment of student outcomes
- Nurturing a climate of innovative and creative thought
- Collaborative decision making
- Community development through partnerships and services
- Ethical practices and integrity
- Respect, compassion, and equality for all persons
- Responsible and sustainable use of resources
- Fostering attitudes that exemplify responsible participation in a democratic society

Core Themes: TMCC has established nine objectives under three core themes. The core themes and associated objectives are as follows:

Core Theme I: Student Success
 Objective 1: Promote college readiness.
 Objective 2: Increase student retention and persistence.
 Objective 3: Increase graduation, and transfer rates.

Core Theme II: Academic Excellence
   Objective 1: Provide relevant curricula and effective delivery of instructional programs and services.
   Objective 2: Provide relevant and effective non-instructional college programs and services.
   Objective 3: Meet workforce educational needs in the service area.

Core Theme III: Access to Lifelong Learning
   Objective 1: Serve as a resource for the community, both internal and external, by providing a variety of opportunities for educational and cultural enrichment.
   Objective 2: Provide a welcoming and accessible teaching and learning environment.
   Objective 3: Create, expand and/or strengthen partnerships with civic, community, educational and business/industry organizations to provide lifelong learning opportunities.

Academic Programs

The following table summarizes new academic programs that TMCC is planning to implement in the next four years (2015-2019):

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Aviation Technician emphasis, Transportation Technologies AAS	The Aviation Technician emphasis expands on the existing Transportation Technologies AAS. In response to the governor's economic initiatives and new industries moving to northern Nevada, the college is working to develop this program as it relates to the state's designation as a UAV test site.	Fall 2016	$200,000 startup for equipment purchases and renovations $100,000 annual operations for staff and operating expenses	Private and industry contributions, Perkins, grants
Applied Logistics Operations BAS	This program prepares students in the applied areas of manufacturing, operations, logistics, and supply chain through an industry-driven curriculum encompassing manufacturing processes, quality principles, engineering economy, work measurement, and facilities layout. To meet emerging workforce needs in northern Nevada, the college is working with industry on this degree.	Fall 2016	$100,000 for staffing and operating expenses	Private and industry contributions, grants
Homeland Security/ Emergency Management BAS	This program is in response to the growing regional and national demand for highly skilled professionals in emergency management and security. This degree provides individuals from multiple emergency response and safety disciplines a pathway in the growing field of public and private sector disaster preparedness.	Fall 2016 or Fall 2017	$100,000 for staffing and operating expenses	Grants, Industry support

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Cyber Security AAS	This program will train workers with the organizational knowledge and tools for applying security measures across a variety of network architectures and settings.	Fall 2017	No additional cost. Current faculty can meet demand	
Occupational Therapy Assistant AAS	This program will prepare workers to help people who have mental, physical, or developmental disabilities with the goal of helping patients live more independently. To meet workforce needs in Northern Nevada, the college is researching the feasibility of this program in concert with CSN.	Fall 2015 or 2016	$150,000 One faculty position with a cohort model and a portion of the Director salary shared with CSN.	Develop this program in cooperation with CSN using a common accreditation umbrella. Expecting equipment donations
Physical Therapy Assistant	Currently TMCC offers an accelerated career training program for Physical Therapy Technicians. However, this is a fifteen week program that does not lead to an academic credential. TMCC will pursue the feasibility of expanding this training program to become a Physical Therapy Assistant AAS program. Currently, the PT Tech program is managed through the Workforce Development office and is offered as a non-credit certificate program. TMCC will develop a for credit AAS to respond to industry need. This will require developing the curriculum and identifying specific industry partners.	Fall 2019	$250,000 for a coordinator and two faculty positions.	Contributions and use of clinical facilities with medical industry partners.
Respiratory Therapy Assistant AAS	This program with prepare workers who are trained to evaluate, treat, and care for patients with breathing or other cardiopulmonary disorders. To meet workforce needs in Northern Nevada, the college is researching the feasibility of this program.	Fall 2017	$300,000 - requires a director and 2 faculty	Potentially share with WNC and seek support from hospitals + equipment donations
Biomedical Assistant/ Technician AAS	This program will train biomedical research technicians who are responsible for: following laboratory protocols; making detailed observations; collecting, analyzing, and recording data; and reporting experimental results to the head of the laboratory. To meet workforce needs in Northern Nevada, the college is researching the feasibility of this program.	Fall 2016	$100,000 for Coordinator -uses existing faculty and courses.	Perkins Grant for start up

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Radiologic Technology certificate	Local health care facilities have requested that the existing Radiologic Technology program add specialties onto the existing program. Sample specialties include post-baccalaureate certifications in the areas of Magnetic Resonance Imaging (MRI), sonography (ultrasound), computed tomography (CT). These specialties will be developed as Skills Certificates which can be post-baccalaureate.	Fall 2016	None, existing faculty can cover along with faculty loaned to TMCC by local hospitals	
Paralegal BAS	Expansion of AAS Paralegal Degree in response to American Bar Association expectation that students have track to bachelor's degree. Tracks in paralegal support for Affordable Care Act and Electronic Discovery.	Fall 2016 or 2017 depending on resources	$100,000 for tenure track Paralegal faculty position, operating, and expended library resources	
Occupational Education BAS	This degree is designed for people who have earned or meet requirements for an AAS degree in a technical area and wish to teach or provide training in a community or technical college, trade or technical institutes, and business and industry settings. To meet workforce needs in Nevada, the college is working with UNR College of Education.	Fall 2016	$100,000 for new faculty position.	

Student Services

The following table summarizes new student services that TMCC plans to implement in the next four years (2015-2019):

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
TMCC Student Internship Program	A single point of contact for TMCC Internship experiences. The coordinator will ensure work with employers, faculty and students to ensure internships meet required guidelines and to expand internship opportunities for students.	Coordinator to be hired in fall of 2014, program to be fully implemented in Spring 2015.	$100,000/yr	Student fees (8% fee increase approved in 2012).
CareerConnect	Provides guidance to students with disabilities who are also clients of DETR-VR to help them acquire the academic preparation and job skills necessary to obtain successful employment.	January 2015	$330,000/yr	Third Party Cooperative Agreement with DETR-VR

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
N-RAP (Nevada Recovery and Prevention community)	Collegiate recovery and prevention program for students choosing to live a sober lifestyle.	Groundwork starting in Fall 2014, full implementation by 2016.	$10,000/yr	Grants (Stacy Mathieson Foundation is providing resources for technical support from UNR's program.)
Suicide Prevention	Increase awareness, training and resources to address students in distress and to create a zero suicide culture at TMCC.	Some aspects will be implemented in Spring 2015. The hiring of a coordinator is dependent on grant funding.	$102,000/yr for 3 years	Federal SAMSHA grant (grant submitted in May, 2014).
Veterans Resource Center	The Veterans Resource Center, gives vets a place to mentor each other, to join study groups, and meet with peers.	Opened on April 9, 2014.	$90,000	Currently staffed by VA work study students, TMCC is actively seeking grant dollars to fund a Veterans Coordinator, who will expand services. If no grant dollars are received, the intent is to fund the position with 4% fee increase funds beginning in 2016-17.
Financial Literacy and Money Education by Students (FLAMES):	The Financial Literacy and Money Education by Students (FLAMES) team provides financial literacy education and information to TMCC students. TMCC students have been trained as peer mentors to help other TMCC students gain a better understanding about their money, their attitude towards money, and their choices involving money. In addition to one-on-one sessions, these student peer mentors have created workshops and in-class sessions in an effort to reach out to students.			This pilot program is currently funded by a grant from USA Funds, with the intent to fund it with 4% fee increase funds beginning in 2016-17.

WESTERN NEVADA COLLEGE

Western Nevada College Mission

Western Nevada College (WNC) inspires success in our community through opportunities that cultivate creativity, intellectual growth and technological excellence, in an environment that nurtures individuals potential and respects differences.

Strategic Initiatives

WNC has established ten strategic initiatives under three core themes.

Theme 1: Student Success

- WNC students graduate with a degree or certificate
- WNC students engage in the college experience

Theme 2: Institutional Excellence

- WNC is the educational institution of choice in western Nevada
- All academic programming is of the highest quality
- All support programs and services meet the needs of the WNC Community
- WNC has an exemplary system of governance and management
- WNC strives for institutional sustainability

Theme 3: One College Serving Many Communities

- WNC promotes access to higher education in western Nevada
- WNC serves as a catalyst for personal and community enrichment
- WNC promotes community connections

Academic Programs

The following table summarizes new academic programs that WNC plans to implement in the next four years.

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Bachelor of Applied Science	This program will prepare students for managerial careers in technical fields and offer a seamless transition from an associate's of applied science degree in a technical field to a bachelor's degree.	Fall 2016	None - existing faculty will teach the required courses.	Private donations and grant funding
Respiratory Therapy Assistant AAS	This program with prepare workers who are trained to evaluate, treat, and care for patients with breathing or other cardiopulmonary disorders. To meet workforce needs in Northern Nevada, the college is researching the feasibility of this program.	Fall 2017	$300,000 - requires a director and 2 faculty	Potentially share with WNC and seek support from hospitals + equipment donations
Early Childhood Educator I and II Skills Certificates	The first two in a series of four stackable skills certificates that align with the Nevada Registry Career Ladder level 2.1 and 2.2	Fall 2015	None - all required courses are currently offered at WNC	

Student Services

The following table summarizes new student services that WNC plans to implement in the next four years.

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Jump Start College Expansion	Dual credit high school program serving 13 area high schools by offering up to twelve transferrable credits per semester to qualified junior and senior students.	Program launched in Fall, 2014 with nine high schools expanding to thirteen high schools in Fall, 2015. Coordinator will be hired by Spring 2015.	$250,000/year Coordinator, Teacher Assistants, Scholarships, Travel and Operating	Student Fees and Grants
Veterans Resource Center	Cohort model support to assist veterans in college access and success.	Launched Fall of 2013; Significant expansion for Fall of 2014	$100,000/year, Coordinator, Assistant, Travel and Operating	TAACCCT 4 Grant

Table Continued

New Program Name	Brief Description	Date of Implementation	Estimated Cost	Funding Sources Outside of State Dollars
Career Connect	Partnership with DETR to provide the education and training to assist students with disabilities in obtaining employment.	Spring 2015	$110,000/year, Coordinator, Assistant and Operating	Third Party Cooperative Agreement with DETR/Voc Rehab
Latino Resource Center	Cohort model support to assist first generation, low-income, non-native English speakers in college access and success.	Fall 2010	$100,000/year Coordinator, Peer Coaches, Operating and Travel	Currently staffed by dean's assistant functioning in a dual-role as Coordinator of Latino Outreach. External funding is being pursued.
Native American recruitment	Initiate a Native American recruitment effort that will mature into a cohort model similar to our Latino Resource Center.	Fall 2014	No costs in initial phases. $100,000/year Coordinator, Peer Coaches, Operating and Travel at maturity of program.	External funding will be pursued at the appropriate time.

DESERT RESEARCH INSTITUTE

Strategic Objectives

Desert Research Institute (DRI) administration, faculty, and staff engaged in a comprehensive strategic planning process that lead to the submission of an integrated institutional strategic plan for the Nevada System of Higher Education (NSHE) that was approved by Board of Regents in 2011. Much of the vision and actions set forth in that plan have been have been excerpted and described below. DRI's strategic goals are listed and provide the framework for ongoing and future education and research initiatives. Note, this document follows the NSHE specified format as DRI's focus is unique among NSHE institutions and it is not a degree granting institution. However, DRI remains an integral component of NSHE's advanced training and research portfolio.

- Serve as A World Leader – DRI will serve as a world leader in environmental sciences through the application of knowledge and technologies to improve people's lives throughout Nevada and the world.

- Foster Scientific Talent – DRI will foster scientific talent for the advancement of the environmental sciences and the integration of terrestrial, hydrologic, atmospheric, and anthropologic sciences to provide innovative solutions and enhanced resource management.

- Establish Active Partnerships and Collaborations – DRI will establish active partnerships and collaborations with communities, organizations, businesses, governments and international entities to address the most crucial environmental issues and needs identified at the state, national and global levels.

- Provide Quality Opportunities for Research-Education Experience – DRI will provide the highest quality opportunities for post-doctoral, graduate and undergraduate research experience; add value to Nevada's teaching institutions by participating in graduate and undergraduate educational programs; and support the science-based educational needs of the state.

- Leverage Scientific Innovation and Intellectual Capital Needs – DRI will encourage technology transfer. DRI will endeavor to transfer its environmental technologies to facilitate the development of solutions for local, state, national and world environmental problems, as well as to meet Nevada's needs for economic diversification, growth and global recognition.

- Serve as a Model – DRI will serve as a model to demonstrate how a combination of entrepreneurialism and sound research can strengthen a university system, a state's economic portfolio, and society overall.

The strategic objectives listed are being evaluated and updated as part of a DRI-wide planning effort that should be completed in the first months of 2015. Among the objectives identified thus far*- defining DRIs unique role within higher education and working with NSHE partner institutions to effectively leverage this role is a high priority item/critical objective. Specific strategies to meet the objective will include increased coordination and equitable use of DRI faculty as undergraduate research mentors. Strategic and equitable use of DRI faculty as instructors when and where expertise is sought or needed to diversify campus curricula offerings. These targeted strategies are in addition to DRI's historic role in developing and offering graduate programs in Atmospheric and Hydrologic sciences.

(Note: The five critical objectives targeted through the ongoing campus-wide planning process include the enhancement of DRI's Research Excellence; Reputation and Visibility; Service to the State; Long-Term Sustainability; and its Unique Role in Higher Education).

Education Initiatives

DRI will continue to work collaboratively with University of Nevada, Reno (UNR) and University of Nevada, Las Vegas (UNLV) to ensure the continuation and evolution of quality collaborative graduate programs that help in meeting the aforementioned strategic goals. Specifically, DRI will continually seek to review and improve its curricula in Atmospheric and Hydrologic sciences such that these programs sustain their national competitiveness, serve the needs of Nevada and the nation for a skilled workforce and develop new skills that are relevant to emerging research needs. Moreover, DRI will continually seek new initiatives and higher education programs that will serve the needs of institutions, faculty and students from across the state.

DRI presently is seeking collaborative opportunities for articulating new graduate programs or areas of specialty in areas of emerging relevance that are linked to its research mission and align with present NSHE expertise. Potential future programs include the following:

Statewide Graduate Water Resources Program

DRI will continue to work collaboratively with the UNR and UNLV regarding the possibility of establishing an integrated statewide graduate academic program in water resources. This program would seek to integrate desirable parts of both UNLV's M.S. Water Resources Management Program and UNR's Graduate Program of Hydrologic Sciences to make a broader range of degree specialties accessible to a broader diversity of students and faculty across Nevada. Increased participation of faculty from all NSHE entities would create a critical mass of expertise that would be even more internationally recognized and competitive and would foster improved research and educational collaborations.

Soils Sciences Graduate Program

DRI will work collaboratively with the administration and faculty of UNR and UNLV regarding the possibility of establishing a statewide soils sciences graduate program. Presently, there is no such program in the state and students wanting to specialize in areas of soils sciences are articulating graduate degrees in diverse areas such as the Environmental Sciences, hydrologic sciences, geosciences and at both UNLV and UNR. The development of a curricula better serving students with targeted interests in soil geomorphology and vadose zone processes could be developed by engaging and coordinating the combined expertise of faculty at UNR, DRI and UNLV. Such a program would be advantageous for developing soils science expertise that is most relevant to the arid and semi-arid regions of Nevada and the world.

Graduate Microbial Ecology/Geomicrobiology Program or Specialty of Study:

DRI will work collaboratively with the administration and faculty of UNR and UNLV on the possibility of establishing a geomicrobiolgy or microbial ecology graduate program within the NSHE system. Presently all three institutions in combination have several faculty (ca. 10-15) with expertise in microbial ecology or geomicrobiology- yet their graduate students take courses and presently earn degrees in diverse graduate programs ranging from the geosciences, hydrologic sciences, the life-sciences, cell and molecular biology programs and environmental sciences. Many students and faculty have expressed the interest to coordinate instructional efforts so students can articulate and graduate from a program that more accurately reflects their training and interests in microbial processes and the geosciences.

Graduate Programs in Integrated Earth Systems Sciences:

DRI will work collaboratively with the administration and faculty of UNR and UNLV on the possibility of establishing an integrated Earth systems Sciences graduate program within the NSHE system. Presently, the NSHE system has the expertise and curricula that would support such an advanced degree. The combination of Atmospheric Sciences, Hydrologic Sciences, Geosciences and Ecological Sciences when coordinated in an advanced degree program will offer the means to produce students with the expertise for comprehensive analysis of Earth's land, atmosphere, oceans, and freshwater systems such that they can effectively engage in issues related to global environmental change and Environmental sustainability.

E-learning in the Environmental Sciences

DRI will work to asses its role and capabilities for offering on-line educational opportunities and curricula. This assessment will entail determining best practices for utilizing on-line technologies for enhancing current courses/curricula and effectively engaging students through proven pedagogy. Moreover, DRI will asses its capabilities for offering on-line courses and perhaps certificate programs that will compliment on-line or campus-based programs in the strategic areas of expertise of DRI faculty.

Research Initiatives

The list of potential new and expanded DRI research initiatives shown below is representative, but not inclusive, of the wide range of research areas planned for addition or expansion during upcoming years. Many of these foci link or have the potential to link with the listed education initiatives. Extramural awards will support these programs.

Addressing environmental and societal impacts of climate change and related national security implications

DRI will continue to expand its research expertise regarding the impacts of climate change on resources (in Nevada and other western states) in collaboration with key authorities (e.g., Southern Nevada Water Authority - SNWA) as well as with state and federal agencies. A better understanding will be developed in how to manage scarce resources because of changing meteorological conditions. A key component of this effort will be the examination of the water/energy nexus. That is, what are the impacts on energy generation and use caused by water scarcity and what are the impacts on energy use caused by the increased delivery and treatment requirements of water? DRI will further its research efforts on how natural systems and human society must adapt to climate change. These efforts will entail paleo-climatic research examining climate changes on earlier civilizations.

The interactions between environmental conditions and human health

DRI will build its research portfolio by capitalizing upon DRI scientific expertise and instrumentation development capabilities on: (1) fugitive dust, airborne particulates, and dispersion patterns that have direct relevance to the epidemic of respiratory problems apparent in parts of Nevada and in arid regions in other parts of the country and the world; (2) the ecology of infectious disease, using advanced techniques in remote sensing and geospatial analysis to understand how pathogens, vectors, and hosts move across landscapes under different environmental conditions; and (3) microbial ecology, examining a number of bacterial, fungal, and algal pathogens including those responsible for harmful algal blooms, a growing environmental hazard; (4) modeling and predicting human and ecological exposure of contaminants transported by groundwater; and 5) molecular biology, including the quantification of genome architecture in pathogens and free-living microbes.

Advanced analytics and advanced visualization

DRI is expanding its research portfolio by focusing on problem-solving projects in technical areas such as the fire/meteorological interface by: (1) developing technologies in computer graphics, computer interfaces, and scientific computing for the enhancement of environmental science research; (2) leveraging the availability of state-of-the-art visualization and virtual reality tools and hardware; and (3) utilizing technical expertise in visualization and virtual reality software and techniques and by establishing collaborative efforts with other DRI and NSHE faculty as well as Nevada's business and services community.

Clean energy systems and technologies

DRI will intensify its efforts in clean and alternative technology that will address two national and international issues: (1) the reduction of greenhouse gases being emitted into the atmosphere; and (2) the concomitant utilization of indigenous energy resources to reduce dependence on foreign energy. DRI will expand its research and technology development portfolio in several areas including but not limited to: (1) assessing applications of renewable energy in the desert southwestern U.S.; (2) supporting the rapid transition of end-use energy efficient technologies from household to community applications through the development of demand response systems; (3) leveraging DRI's energy laboratory, including integrated renewable energy (indigenous renewable resources, energy storage) systems; (4) utilizing

ecological and geotechnical expertise for evaluating carbon sequestration opportunities; (5) implementing and obtaining funding for the new Clean Technologies and Renewable Energy Center (CTREC); and (6) leading and collaborating in NSHE's newly established NVREC.

Military geosciences

DRI will enhance its ability to assess interactions between critical military operations and the terrestrial and near-surface atmospheric environments, including the impact of military operations on the environment (i.e. range sustainability), and the impact of environmental conditions on military operations (e.g., mobility, counter IED). Sustainable support for such assessments will focus on funding from the Department of Defense (DoD) in collaboration as appropriate with DoD prime contractors.

Integrated natural resources evaluation

DRI will place itself in a world leadership position regarding assessment and sustainable management of natural resources (e.g., water, land, and air) in urbanizing arid regions. An integrated approach will include the substantive integration of concepts from social sciences (e.g., conflict resolution, water law) and significant efforts in developing decision support systems to better inform the public at large and governmental decision makers in particular.

Issues involving international water development; availability, quality, and international conflict

DRI will build upon its faculty expertise and experience in national and international water projects to promote sustainable water quantity, particularly in regions of the world with similar water availability issues as the American Southwest, while ensuring adequate water quality for developing countries throughout the world. In addition, DRI will work on international issues involving national water rights and related conflicts.

Atmospheric Research and Assessment

DRI will continue to expand its research using and developing proxies for assessing climate trends. This expansion of capabilities will include analysis of ice cores, sediments, and rocks. Building on its long-term success in monitoring environmental variables (e.g., CO_2, atmospheric aerosols and pollutants, radiation, temperature, wind velocity and direction) and modeling their distribution, DRI will expand existing research to include monitoring, modeling, early detection and multivariate analyses of complex data to document changes related to areas of interest to homeland security and nuclear nonproliferation. DRI will expand its investigation of recently reported findings that particulate matter in the air inhibits precipitation formation. Building on the proven success of our cloud-seeding program, DRI will use various research methods to assess the effectiveness of cloud seeding for promoting enhanced snowfall in Sierra-based winter weather systems.

Expansion and Enhancement of Existing Research Initiatives

In addition to potential new DRI research initiatives, we will continue to expand and enhance our previous research areas. Similar to our new areas, extramural awards will support these programs.

Air Quality

Research linking air quality and human health issues (e.g., increased asthma and other respiratory system afflictions) has grown over the last decade. DRI plans to build upon our successful research programs in the areas of ozone, particulate sources, mercury, and dust emissions with more mobile testing equipment, increasingly accurate models, and recommendations for mitigating the effects of dust, haze, and other atmospheric pollution. In addition, we will continue to expand our work on climate change to investigate potential impacts on air quality.

Desert Soil-Forming and Hydrologic Processes

Upgrading of DRI's lysimeter facility in Boulder City will provide scientists with the tools to bridge a critical gap in scale among outdoor (i.e., natural) experiments, large-scale (DRI's EcoCELLS), and smaller-scale laboratory experiments. Soil and hydrology studies utilizing these facilities will enable DRI scientists to validate results extrapolated from non-natural settings to natural environments.

Geo-archaeology

Building on its broad expertise in geomorphology and archaeology, DRI is expanding its research in geo-archaeology – the use of geologic, geophysical, and geomorphologic tools and techniques to address issues in archaeology. Primary among these is constructing predictive models for sites of cultural resource significance.

Geographic Information Systems (GIS), Global Positioning Systems (GPS), Hyper-spectral Analyses, and Landscape Changes

Utilizing DRI expertise in GIS, GPS, and hyper-spectral analysis, we plan to focus research on remotely sensed information analysis in order to assess broad yet subtle changes in land use over time. Such research has proven effective in demonstrating the consequences of policy changes on land use, the expansion of desertification, the impact of increasing urban growth, and myriad other human/landscape interactions that directly affect the environment.

Geo-microbiology

Identification of microbial life, understanding microbial ecology, and monitoring byproducts of these systems are critical research areas. Microbial life in hot Yellowstone springs, for example, provides information about life on early earth; and studies of life in frozen environments (e.g., microbes that survive in Antarctic rocks) may provide clues to the possibility of life on other planets.

Global Climate Modeling and Forecasting

DRI will continue to expand its research using and developing proxies for assessing global climate trends. This expansion of capabilities will include analysis of ice cores, sediments, and rocks. Climate changes dramatically affect the water cycle in Nevada, which has direct bearing on the amount and availability of both surface water and groundwater here and elsewhere in the arid west. Research in this area, including development of regional climate modeling capabilities, will expand greatly under the recently awarded National Science Foundation (NSF) EPSCoR grant.

Homeland Security Monitoring and Modeling

Building on its long-term success in monitoring environmental variables (e.g., CO_2, atmospheric aerosols and pollutants, radiation, temperature, wind velocity and direction) and modeling their distribution, DRI will be expanding existing research to include monitoring and modeling related to homeland security interests, including early detection and multivariate analyses of complex data to provide monitoring of environmental changes related to areas of interest to homeland security and nuclear nonproliferation.

Regional Watershed Research

DRI will expand its presence in the Lake Tahoe basin (in part through research conducted at the new Tahoe Center for Environmental Sciences on the Sierra Nevada College campus), the lower Colorado River basin, the Walker River basin, as well as other western watersheds and terminal lake basins. Research will address issues ranging from water clarity in Lake Tahoe to restoration, sustainable development, and biodiversity in other systems.

Weather-Modification Research

DRI will expand its investigation of recently reported findings that particulate matter in the air inhibits precipitation formation. Building on the proven success of our cloud-seeding program, DRI will use various research methods to assess the effectiveness of cloud seeding for promoting enhanced snowfall in Sierra-based winter weather systems.