



# **2013 - 2016 Planning Report**

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**Institutional Academic, Research,  
and Student Service Plans**

*Approved by the Board of Regents  
November 2012*

# NSHE Leadership

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## 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:

*The Board of Regents shall prepare a comprehensive plan for the next 4 years which explains:*

*Any anticipated new programs and expansions of existing programs of instruction, public service or research, itemized by year and by purpose;*

*The anticipated cost of each new or expanded program described under paragraph (a);*

*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*

*Any further information concerning its comprehensive planning which the Board of Regents may deem appropriate.*

*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). 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 Strategic Directions: 2012 - 2014

In its 2011 publication, *Complete to Compete: from Information to Action*, the National Governors Association identified the “triple threat” facing public colleges and universities nationwide:

- A greater percentage of jobs requiring postsecondary education;
- A continuing squeeze in state budgets, particularly from the cost of health care; and
- A growing population of students from groups that have historically not successfully completed postsecondary programs.

Nevada on a grander scale faces these same challenges. Nevada’s public colleges and universities have historically been successful in serving large numbers of Nevadans, but many students fail to graduate and those who do often take too long to do so. As a result, degree productivity across NSHE institutions is extremely low. In a state that needs more educated workers in the future, the NSHE faces the daunting challenge of producing more degrees in a shorter period of time using fewer resources and ensuring quality.

In response to these pressures, the Nevada Board of Regents initiated a strategic planning process in 2011 to sharpen the focus of its existing master plan, *Building Nevada’s Future: A Master Plan for Higher Education in Nevada*. The Board set student success as its primary goal, that is graduating more students with meaningful degrees and certificates, thus positioning the graduates for fulfilling and productive careers and positioning the State with an educated citizenry required for supporting and maintaining economic development and diversification.

As part of the strategic planning process, the Board considered the following guiding principles that were endorsed by the NSHE Chancellor and Presidents and represent the mission, vision and values of all NSHE institutions:

- State Advancement – The Nevada System of Higher Education will be an important engine of economic advancement for Nevada and the respective geographic areas served by each NSHE institution through more graduates, technology transfer, and strong partnerships between the business community and higher education – consistent with the economic development goals of the State.
- K-20 Partnerships – Establish active partnerships with K-12 education in order to improve the number and quality of students entering and succeeding in Nevada’s higher education system, including better curricular alignment between K-12 and higher education.
- Access and Affordability – Maintain affordability by ensuring that all students can enroll at an NSHE institution by virtue of the cost of attendance and an appropriate financial aid package, and further ensuring that students and parents understand the

appropriate steps to be taken in saving and preparing for college.

- A Whole Greater Than the Sum of its Parts – Recognize the different missions of each NSHE institution and ensure that each is governed to enhance its own mission and complement that of its sister institutions – resulting in a stronger system of higher education.
- Diversity – Embrace the diversity of our state and ensure that students from underrepresented groups have access to the NSHE institutions through the promotion of programs that support the unique challenges facing students of color.
- Efficiency and Effectiveness – Ensure that every dollar allocated is spent wisely in support of the institution and System through the prioritization of programs, activities, and goals.
- Accountability and Transparency – Achieve progress based on institutional and System goals that are defined, with clear strategies for their fulfillment and continual assessment of progress toward those goals.
- Adequate Funding Model – Ensure that NSHE institutions have appropriate funding models in order to provide the citizens of Nevada with every opportunity for a quality education.

At its January 20, 2012, meeting, the Board of Regents adopted strategic directions that the System and its institutions will use as a road map for meeting the Board's various goals and initiatives. The following initiatives are designed to support that goal and provide a reasonable plan for achievable implementation.

### Initiative #1: Increase Student Retention and Success

- Improve remediation efforts and develop new instructional strategies and strengthen K-12 partnerships to ensure students are adequately prepared for the rigors of college level coursework.
- Focus research activities in areas with high probability of success and recognition; review and streamline research activities in areas of lower demand or success.
- Increase student mentoring and advising efforts to ensure that students are aware of and understand the steps necessary for success.
- Remain responsive to faculty concerns in order to attract and retain qualified faculty to carry out strategic direction and achieve institutional goals.
- Re-examine all courses in order to utilize transformative teaching methods that benefit students.
- Require institutions to examine and establish procedures and goals to ensure that all students admitted receive the essential access to classes and support services that will allow them timely progress to degree.
- Require the development of academic degree plans for all degree-seeking students through mandatory advising.

## Initiative #2: Increase Transparency, Accountability and Performance

- Adopt the Complete College America (CCA) goals, including goals for enrolling and graduating students from diverse backgrounds.
- Reward institutions for progress in achieving adopted performance standards, including goals agreed upon through the National Governor's Association Policy Academy and the CCA completion metrics.
- Establish institutional protocols for reviewing student performance and determining the extent to which they are pursuing and completing educational programs and acquiring the skills demanded of Nevada employers.
- Develop and implement institutional assessment plans and effective measures of student learning outcomes for all academic programs—these plans should define student learning outcomes, assess student performance and be used to improve teaching and learning.
- Utilize data to identify obstacles to student success and take appropriate steps to correct those obstacles.
- Develop incentives for recruiting and retaining high performing and innovative faculty.
- Establish performance metrics to set budget parameters, determine system priorities and allocate performance funding dollars.
- Establish institutional incentives that reinforce behaviors that lead to student success.

## Initiative #3: Continuous Review and Revision of Programs to Support Innovation and Responsiveness

- Develop new degree and certificate programs to provide students with career and technical options consistent with current and forecasted economic development and workforce goals of the state.
- Examine whether, for students who do not meet university admission requirements, to require a transferable associate's degree (AA, AS or AB) to transfer to a university.
- Develop appropriate public/private partnerships with community, businesses, and K-12 to support innovation connectivity, including enhanced collaborative R&D efforts between industry and higher education research institutions.
- Establish goals for increasing the number of and revenue from grants for research and workforce development in areas of high demand/success, including R&D that will support intellectual property and commercialization.
- Seek funding for innovative and cutting-edge research, including funds to support the Nevada Knowledge Fund and that leads to invention disclosure, licenses and related income, including spin-off companies.
- Align overarching research and workforce development priorities with the state plan for economic development.
- Strengthen degrees and certificates that link to identified future jobs sought by Nevada in its economic development plan.
- Participate on the State Board of Economic Development.

### Initiative #4: Ensure that Higher Education is Accessible and Affordable for All Nevadans

- Increase the college participation rate for students from low income and first generation families through transparent and predictable financial aid programs.
- Focus financial aid programs on students seeking degrees who engage in patterns of success, including full-time enrollment.
- Establish financial aid programs that address the unique challenges faced by underrepresented students.

The strategic initiatives outlined in this document are intended to be used by the System and its institutions as a guide as they move forward and continue to rebuild their programs following a number of years of fiscal challenges. In the pages that follow, the institutions have outlined their respective plans for new programs and expansions of existing programs of instruction, public service and research.



## UNIVERSITY OF NEVADA, LAS VEGAS

### 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. One of UNLV's central goals is to increase research and scholarly productivity and become a nationally recognized research university. 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.

Additionally, the university will make efforts to increase the diversity of its student body while also increasing graduation and retention rates and increasing the quality of our student body. Enrollment trends indicate that UNLV will be eligible for Minority Student Institutional status in the near future; we will continue to build quality programs to support our efforts to attain this status. UNLV has begun to implement a new nationally recognized outcomes-based General Education curriculum, continued implementation efforts will be a high priority in the upcoming years. This curriculum will add value to our students' education and enhance student engagement, progression, retention and graduation.

In the knowledge that a diverse faculty is important in enriching the campus and in providing role models to our students, the university is committed to increasing the diversity of its faculty and staff. Although much progress has been made in this area, the university seeks to achieve the goal of meeting or exceeding the national higher education labor market availability percentages for women and minorities.

### Academic Programs

UNLV over the course of the next few years will implement fully its new general education curriculum, which is built upon several important and innovative principles in liberal education. We have identified key student learning objectives to bring explicit and intentional educational goals for those courses, (Communications, Inquiry & Critical Thinking, Citizenship & Ethics, Global/Multicultural Knowledge and Awareness, Intellectual Breadth & Lifelong Learning) which have been closely aligned with the general education student learning objectives of our sister

institutions. We have adopted a "vertical" model that integrates these key learning outcomes into the discipline-specific content of the major and progressively develops that knowledge over the course of the college career. We have built into our curriculum a focus on undergraduate research and direct engagement with fellow students and full-time faculty to foster a stronger learning community on our campus. We have adopted demonstrated high-impact practices such as setting minimum requirements for student workload based upon national research that shows more rigorous focus on student reading and writing increases not only communication but also critical thinking skills.

More broadly than the General Education curriculum, UNLV has undertaken and will pursue a significant shift in its approach to undergraduate education towards a focus on assessing measurable student learning outcomes and using that data to set and meet benchmarks for quality of student learning. These assessment measures and benchmarks are implemented this year both for skills and competencies and for discipline-specific content in our new undergraduate general education curriculum, and we plan over the next few years to broaden that focus on student learning outcomes and measurable quality improvements to our degree programs as well.

UNLV is committed to developing undergraduate and advanced degree programs that build upon our reputation for excellence, our comparative advantage in key fields such as Hospitality, Law and Fine Arts/Entertainment, and establish unique educational opportunities for students from the state, region and around the world. These programs will be increasingly interdisciplinary, increasingly focused on developing advanced skills in emerging fields of knowledge, and increasingly tied to emergent industries in the new Nevada economy.

## Economic Development

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.

UNLV seeks to develop a stronger workforce, create new business and industry enterprises, and develop new technologies to grow and sustain Nevada.

As a comprehensive research university, UNLV conducts research responsive to Nevada's most pressing economic, technological, social, and environmental challenges. UNLV seeks to foster collaboration among an intellectually and demographically diverse network of researchers, students, and community stakeholders to support and grow a strong trans-disciplinary research base that guides the development of effective solutions to the region's most challenging contemporary problems.

## Program Proposals

As a result of comprehensive campus-wide planning, an inventory of possible new programs of study is included below. Current budgetary and fiscal issues require that only well thought-out and focused programs be developed. That does not, however, negate the need for such programs. Thus, it is important to establish a framework for the selective development and implementation of such programs in the future.

This list has not been fully vetted through the academic and administrative system within the university given that, 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 it 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 education 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 proposal that are more traditional in nature that reflect logical expansions of degree offerings to provide appropriate expertise to our students.

**Table 1**

| New Program Name  | Brief Description   | Date of Implementation | Estimated Cost  | Funding Sources Outside of State Dollars  |
|---|---|------------------------|---|---|
| Masters in Gaming & Integrated Resort Management                | Multi-disciplinary degree, housed in the Hotel College to also include Law, Business, Architecture and maybe Sociology & History  | Fall 2014              | Would need an additional Full Professor in the Hotel College and graduate assistant funding   | None initially except perhaps special course fees   |
| MS - Interdisciplinary Information Technology                   | University-wide graduate degree program for anybody with any BS or BA degree  | Fall 2014              | 3 positions- one director, one faculty and one administrative assistant. (\$400,000)  | Potential industrial partners, potential partnership with Zappos, Switch Communications, and Gaming Tech companies    |
| Minor- Interdisciplinary Information Technology                 | University-wide graduate degree program for anybody in any BS or BA degree  | Fall 2013              | 3 positions- one director, one faculty and one administrative assistant. (\$400,000). These resources are shared with MS- IT  | Potential industrial partners, potential partnership with Zappos, Switch Communications, and Gaming Tech companies    |
| Minor- Aerospace Engineering (Emphasis Unmanned Aerial Systems) | A joint BS degree program to be offered between UNLV and UNR  | Fall 2014              | 3 faculty positions at UNLV and lab set up (\$450,000 recurring cost plus \$500,000 one-time cost). These resources are shared with BS- Aerospace Engineering   | Federal funding if Center of Excellence by FAA is received by Nevada. Collaboration with industry partners such as I3 |
| B.A. in English: Professional and Technical Writing             | A second degree offering, to supplement B.A. in English: Literary Studies, aimed at expanding market for writers in various industries  | Fall 2014 or Fall 2015 | \$65K Asst. Prof. line Fall 2015 or 2016<br>\$36K AA II, Fall 2014 or 2015  |   |
| Master of Urban Planning  | This is a professional degree designed to aid the community in building a coherent and successful response to the changing nature of communities. It will be housed in the College, but be interdisciplinary. | ASAP                   | \$68,000<br>Cost includes funds for graduate assistantships, and some PTI funding to cover the faculty needed for the practicum and design courses. However, since the program is interdisciplinary we do not believe any additional faculty will be needed to implement the program. | Potential contracts and grants from national, state, and local agencies.  |

Table 1 Continued

| New Program Name  | Brief Description  | Date of Implementation | Estimated Cost   | Funding Sources Outside of State Dollars  |
|---|--|------------------------|--|---|
| BS-Aerospace Engineering (Emphasis Unmanned Aerial Systems) | A joint BS degree program to be offered between UNLV and UNR | Fall 2014              | 3 faculty positions at UNLV and lab set up (\$450,000 recurring cost plus \$500,000 one time cost) | Federal funding if Center of Excellence by FAA is received by Nevada. Collaboration with industry partners such as I3 |

Table 2

| New Program Name  | Brief Description   | Date of Implementation   | Estimated Cost   | Funding Sources Outside of State Dollars  |
|---|---|--|--|---|
| MS Nutrition Sciences                                       |   | Fall 2015  | \$350,000<br>2 faculty + 2 GA positions  | 0   |
| PhD Nuclear Engineering & Health Physics                    | Previously proposed in collaboration with the College of Engineering. See attached documents.                                 | Fall 2014  | \$400,000<br>2 faculty + 2 GA positions  | Research grants to support some of the students.  |
| PhD Rehabilitation Sciences                                 | PhD in physical therapy; promotes research skills<br>Speeds progression of students to PhD, includes components of MS Nursing | Fall 2015  | \$400,000<br>2 faculty + 2 GA positions  | 0   |
| BSN to PhD  | Speeds progression of students to DNP, includes components of MS Nursing  | Fall 2015  | \$400,000<br>2 faculty + 2 GA positions  | 0   |
| BSN to DNP  | Joint program with Fine Arts with Tracks exist. Splitting them to allow for ABET accreditation                                | Fall 2014  | 0  | Self-sustaining program   |
| BS- Entertainment Engineering and Design                    | Joint program with Fine Arts with Tracks exist. Splitting them to allow for ABET accreditation                                | Fall 2014  | 1 faculty position (\$100,000)   | Support from industry partners such as Cirque   |
| BS- Entertainment Technology and Design                     | Joint program with Fine Arts with Tracks exist. Splitting them to allow for ABET accreditation                                | Fall 2014  | 1 faculty position (\$100,000)   | Support from industry partners such as Cirque   |
| BS-Aerospace Engineering (Emphasis Unmanned Aerial Systems) | A joint BS degree program to be offered between UNLV and UNR  | Fall 2014  | 3 faculty positions at UNLV and lab set up (\$450,000 recurring cost plus \$500,000 one time cost) | Federal funding if Center of Excellence by FAA is received by Nevada. Collaboration with industry partners such as I3 |
| PhD- Biomedical Engineering                                 | A joint degree program among Allied Health, Engineering and Sciences  | Fall 2015  | 7 new faculty in various colleges  | Major ongoing faculty research funding from federal sources, INBRE  |
| PhD- Biomedical Engineering                                 | A joint degree program between Engineering and Sciences   | Fall 2015  | 5 new faculty in two colleges  | Potential industrial partners, potential partnership with NSTeC in certain materials areas of national security       |
| Minor- Construction Management                              | Mainly for Architecture and Civil Engineering Students  | Fall 2013  | One faculty position   | Support from the construction industry  |
| Ph.D. in Early Childhood Education                          | Provide advanced degree for those in ECE and Special Education  | TBD<br>(program received approval at all levels in 2008 with the exception of the Provost level) | Unknown at this time   | Grants  |
| Ph.D. in Addiction Counseling                               | Counselor Education, Nursing, Social Work, and Public Health to address local and national needs                              | TBD  | Unknown at this time   | Grants and private donors   |

Table 2 Continued

| New Program Name  | Brief Description  | Date of Implementation   | Estimated Cost  | Funding Sources Outside of State Dollars  |
|---|--|--|---|---|
| Ph.D. in Counselor Education  | Address needs for counselors   | TBD  | Unknown at this time  | Unknown at this time  |
| M. Ed. in Public School Administration  | Provide graduate degree leading to an endorsement as administrator of a school   | TBD<br>(in the original COE reorganization plan, it was suggested to move this degree to the new Dept. of Teaching & Learning. However, the degree was assigned to GCUA, but is not active/ open at this time. | Unknown at this time  | Unknown at this time  |
| Bachelor's degree in Career and Technical Education: Secondary and Postsecondary                            | Provide initial licensure for CTE teachers for high school, community college, and other adult education settings  | TBD<br>(this degree was not included in the COE reorganization. Faculty reside in Dept. of T&L with a graduate program only)   | Unknown at this time  | Unknown at this time  |
| Ph.D. Biomedical (CoS) or Ph.D. Biomedical Engineering (joint CoS and CoE). May also include Allied Health. | Interdisciplinary degree in fast growing biomedical sciences and engineering. May include biomedical science, biomedical engineering, bio-materials, instrumentation, biomedical devices, and other potential research areas.  | Fall 2015  | 7 new faculty in various colleges   | Major ongoing faculty research funding from federal sources, INBRE  |
| Advanced Materials (CoS and CoE)  | Interdisciplinary degree involving the fundamental science and engineering of new advanced materials for energy research, biomedical applications, automotive, aircraft, defense applications and other critical applications. | Fall 2015  | 5 new faculty in two colleges   | Potential industrial partners, potential partnership with NSTeC in certain materials areas of national security |
| Ph.D. in Criminal Justice   | This is a doctoral degree in criminal justice. There are only a handful of these degrees in the west with most at east cost universities. There is a need for this degree that would look at                                   | Fall 2014  | \$85,000-\$120,000<br><br>Cost includes funds for graduate assistants. The degree program could actually reduce PTI costs as senior PhD students could take on more and more teaching of undergraduate courses. | May be able to fund graduate students from DOJ funds and other grants.  |

Table 2 Continued

| New Program Name  | Brief Description  | Date of Implementation | Estimated Cost   | Funding Sources Outside of State Dollars |
|---|--|------------------------|--|--|
| BA/MA in Communication Studies                                      | This program is designed to attract very high achieving undergraduate students to the university and to the unit. It will be designed as a five-year program so that students in this degree program will earn both their BA and their MA during this time period. | Fall 2014              | No additional funds. The degree program can be offered through existing resources of the unit. | None                                     |
| BA in Ethnic Studies; (Latino/a, African-American & Asian American) | This program is designed to train students in diversity and global awareness   | Fall 2014              | 3 new positions plus existing resources  | None                                     |

## 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 data warehousing and business intelligence tools is being developed to collect, structure, and analyze data from enterprise systems (Student, HR, 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. The central presence of both institutional research and data governance functions in the office ensures that there is close collaboration with the academic and business units.

The emphasis on BI self-service and distributed development will allow units with the expertise to deploy their own 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 UNLV team recently completed several trainings for

targeted academic and business units, creating presentation groups to facilitate collaborative report development and sharing within their units.

Initial development efforts were focused on the shorter term goals of meeting official reporting requirements and providing access to key campus data users. In support of those efforts, the team created a census solution for official and trend reporting modeled the data for presentation through the BI tool, and provided training and support to users across academic and business units. By using working groups comprised of business experts from the offices of Enrollment and Student Services, Budget, and Controller, the development team completed admissions, enrollment, degrees conferred, and student financial data marts. After a series of focus group sessions with representatives from across campus, a student tracking mart is in the development stages. An enrollment management dashboard was delivered to campus executive and managerial staff beginning in May 2012, with refinements being added as the data warehouse infrastructure is developed. Current development efforts are directed to data modeling and architectural design—foundational work that will speed up the delivery of dashboards in high priority initiatives such as retention, enrollment management, and advising. It is important that the team make as much progress structuring and modeling the Student system data in preparation for the implementation of the HR and Financial systems.

To ensure appropriate staffing levels and expertise for both iNtegrate I and iNtegrate II, the office will include campus constituencies in developing an updated vision, and a long 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 that there be resources within each business area committed to data warehouse development, in the form of business experts assigned to communicate development priorities and assist in requirements gathering and data definition.

## Student Services

### Enrollment and Student Services

Enrollment and Student Services, for the period 2013- 2016, will work collaboratively and diligently in our 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, Orientation, and Admissions, efforts will be focused on revamping our recruitment process in addition to reviewing all of our practices to determine their effectiveness and ability to adequately support our expanding priorities and strategies. We will evaluate and improve our recruiter training program to ensure our representatives are prepared and empowered to direct and implement campaigns and initiatives. Marketing materials will be addressed to support and enhance recruitment activities; creating tailored and targeted communication plans for specific programs and audiences. Metrics will be established to guide activities and to gain efficiencies in cost, yield, and in improving the quality of our students through better identification of success predictors. We will look to increase our undergraduate enrollment through creative, thoughtful, and well executed recruitment strategies bolstered by holistic and collaborative programs and efforts targeting retention. This includes expansion of retention initiatives through the Enrollment Services Center and a more intentional partnership with the Academic Success Center and its efforts in this area. Orientation, as will all events and outreach activities, shall 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.

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.

Energies and talent will be directed at, and infused into, the Office of International Students and Scholars (OISS), and Career Services. Over the course of the 2013-2016 period, we look to establish premier and expanded services in both offices. Additionally, we seek to further develop and expand our service and commitment to veteran students through the continued growth of the Office of Veterans Services. All three of these offices, the services they provide and the constituents they serve, will aid in our recruitment and retention efforts; with OISS and Veterans helping to broaden and enrich our diversity initiatives.

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 Enrollment Technology and MyUNLV units 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 mobile technologies and the development/delivery of mobile applications that support the services and processes of ESS. Additionally, labor will be directed to improve the offerings and usability of student self-service options via the portal. Service, as one of our pillars, will further be supported by the implementation of a Help Desk/User Support ticketing system and a reorganization and revitalization of our front line services. As a compliment to these efforts, we will look to engage key campus community members in conversations around the practice of, and technologies that support, customer relationship management (CRM). As these conversations evolve, it is our intent to collaboratively lay the groundwork and vision for the possibility of implementing a 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**

Based upon the successful initiatives that were generated the Civic Engagement Team, a Diversity Team comprised of faculty and Campus Life staff members will be created in order to assess and propose initiatives to enhance the Provost's academic mission, assist with minority serving institution endeavors, and address student needs. The development of this team will begin with attending an AAC&U Conference on Modeling Equity, Engaging Difference: New Frameworks for Diversity and Learning in October 2012.

Campus Life will continue and/or develop cross-cluster/institutional workgroups to assess and develop recommendations to enhance the experience of students, staff and faculty in a collaborative manner. These work groups will include:

- Campus Life 101— a 2 week orientation for new classified and professional staff members
- Assessment Committee (campus life and division) – analyze and report on collected data from two national surveys (SSI and NSSE) as well as data collected from Baseline and NASPA Consortiums.
- Appreciative Inquiry Core Group – this group will develop the spring semester summit to review the seven pillars that guide the work of Campus Life
- International Students and Global House – collaborative effort between residence life, international student programs, and faculty to enhance the experience of international students
- Sophomore Experience – collaborative effort among residential life, office of civic engagement and diversity, academic success center, and faculty to increase retention.
- Social Justice – collaborative effort among residential life, center for social justice, and faculty.

Starting in 2012, a private group will assume facility and administrative responsibility for Housing while Residential Life will continue to be managed by Campus Life.

The Office of Civic Engagement and Diversity (OCED) intentionally provides outreach to the community, develops a variety of venues for student and community engagement and creates strong partnerships with faculty and community partners to address regional issues. This year Festival of Communities in collaboration with GREENFest (founded by Republic Services and the Green Alliance) will showcase the institution via cultural events, academic research presentations, and community service. OCED continues to facilitate workshops on service learning for faculty and community partners resulting in OCED developing service learning activities for 26 class sessions for fall 2012. The Center for Social Justice will focus programming, art, and training around central themes each year. Fall 2012 will focus on Human Trafficking. A highly trained team of students – Rebel Advocates – will also present information and facilitate discussion on the Center for Social Justice Themes in the classrooms as a way to address the undergraduate learning outcomes.

The Office of Campus Life Assessment was formed to coordinate the writing of strategic plans, annual reports and administer the National Survey of Student Engagement (NSSE), the Student Satisfaction Inventory (SSI) and report the results to the institution. Campus Life Assessment has also been working with General Education Assessment faculty in the development of an assessment plan for the First Year Seminar.

chosen bank will provide an on-site banking branch in the UNLV Student Union and partner with UNLV's RebelCard office in providing banking functionality to the Campus ID Card.

### **Student Wellness**

Student Wellness is comprised of a counseling center; a health center, which includes a pharmacy and a clinical lab; 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 UNLV students unifies our wellness, educational, and access efforts.

New initiatives include:

- 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, we will develop an on-line portal liked to MyUNLV that will allow students to schedule appointments, view the results of laboratory tests, and communicate with health care providers via the web.
- Student Counseling & Psychological Services (CAPS) will achieve accreditation by the International Association of Counseling Services (IACS). Accreditation requires counseling centers to meet stringent quality standards while showing evidence of providing effective counseling, consultation, and education services to the university community. IACS accreditation is not only a distinction of excellence, but should benefit future recruitment efforts to attract and hire the highest caliber professionals.
- 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 disabilities. The new system will simplify the process of applying for an accommodation, reviewing documentation, awarding accommodations, and providing case management.
- The Student Health Center will add five additional exam rooms to meet the student demand for health care services. Construction will be finished early 2013 in order to provide this much needed additional space for students to see our team of health care providers and specialists within UNLV's nationally-accredited Student Health Center.
- Student Counseling & Psychological Services (CAPS) will establish the first pre-doctoral psychology internship program in Southern Nevada, and only the second one in the state, that will allow Nevada psychology students an in-state choice to complete their required pre-doctoral psychology internship. The pre-doctoral psychology internship program also will attract highly trained doctoral psychology students that will contribute to UNLV and possibly stay in Nevada and contribute to our economy after graduation.

### **The Center for Academic Enrichment and Outreach**

The Center provides an opportunity to low-income and disadvantaged students and adults to become engaged in the educational process. Annually, through the TRiO and GEAR UP programs housed within CAEO, over 30,000 of Southern Nevada's most needy students and adults are provided with the educational, logistical and financial support and motivation to not only complete secondary schooling, but also to succeed in postsecondary programs.

The Center will continue to provide at-risk and traditionally underrepresented individuals with critically needed educational support services that improve retention and graduation rates for both secondary and postsecondary students. Eligible participants, who are low-income and

first-generation college students, receive the following services: academic advising and counseling, tutoring, supplementary instruction, career exploration, assistance with college admissions processes, scholarships and grant-in-aid, assistance with applying for financial aid, mentoring, advocacy, and referrals to other campus and community resources.

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 Projects, GEAR UP, and other education related projects.

### **Police Services**

UNLV Police Services will be entering a partnership in 2013 with I.A.C.L.E.A. (International Association of Campus Law Enforcement Administrators) to apply for accreditation of the department's operations. 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.

## **Research Initiatives**

As a comprehensive research university, UNLV supports scholarly endeavors in all of its academic programs. However, the university community seeks particularly to create research excellence in areas of importance to Southern Nevada, the State, and the Intermountain West. As a result, the university has developed the following research goals, which were created through the university's strategic planning process:

- 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 research services to faculty and reestablish services that have been cut;
- Increase research funding and technology transfer;
- Bring to success major research initiatives (CORE – Collaborative Research and Education, Water-Energy Nexus program, etc.);
- Promote the mutually beneficial nature of graduate education and research;
- Enhance awareness of the value of research in the community and state.

UNLV strives to create 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 water and the environment, clean energy, public health and biomedical research, transportation, aerospace and defense, information technology (IT) across various sectors (e.g., gaming, health care, cybersecurity, bioinformatics, and visualization) 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.

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:

- Information technology
- Renewable energy
- Biomedical
- Public health & translational research
- Arid lands hydrology and water resources
- Nanotechnology
- Radiochemistry
- Materials science
- Urban planning
- Transportation engineering and planning

The university is committed to supporting 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; Radiochemistry; Nanotechnology; Electrical Engineering; and Security Technology.

One of the most important initiatives for UNLV over the 2011-2014 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. Examples (not exclusive) of grand 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, social economic, and environmental sustainability. This will represent a new paradigm for conducting collaborative research and education on and off campus.

The university is exploring, with statewide and regional partners, the creation of a Biomedical Road Map, which will identify core competencies where research and investment should occur for the State of Nevada to thrive in the biomedical arena. This effort is a collaborative effort with the Nevada Biotechnology and Science Consortium, consisting of UNLV, the University of Nevada School of Medicine, the Desert Research Institute, the Cleveland Clinic, and the State of Nevada. Particular emphasis is being placed on translational research activities in concert with partners in the Mountain West consortium.

Perhaps the most important issue in the world over the next several decades is water. Over the 2011-2014 planning period, UNLV will work with the Desert Research Institute and other community partners to pursue an International Hydro Research and Technology Park in Las Vegas. Creating a world class research and technology campus focused upon the hydro industry will expand Southern Nevada's current economic model and create new, high paying jobs in an industry from which the state can export technologies. In addition, a new statewide team is also initiating new infrastructure to address the water-energy nexus – understanding key water requirements for renewable and conventional energy needs into the future.

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 climate change. This effort will continue into a new area of the water-energy nexus for the region. Another very successful effort is the Nevada Renewable Energy Consortium, which seeks to expand, accelerate, and coordinate basic and applied renewable energy research and development across NSHE institutions. UNLV

participates through program management by the Harry Reid Center (HRC), which coordinates campus-wide activities of this initiative and works with UNLV, UNR and DRI in statewide research activities. Other statewide collaborative efforts that are being coordinated through the HRC include 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 in Year Three of the Northwest Commission of Colleges and Universities' continuous and cumulative seven-year accreditation cycle, which began in 2010. The Year One report identified Core Themes and objectives from the University's Strategic Plan which will guide the university through the seven-year accreditation cycle of reflection and review. At the suggestion of the institution's NWCCU evaluators, these core themes have been revised somewhat to make them more focused.

During 2013-16 the University of Nevada, Reno will focus its efforts on the Core Themes and objectives appearing below:

#### **CORE THEME 1: Prepare graduates to compete globally through high-quality undergraduate and graduate degree programs in the liberal arts, sciences, and selected professional programs.**

##### **Objectives**

- Undergraduate Education: Provide the high-quality degree programs characteristic of a comprehensive research university; recruit, retain, and support Nevada's growing, increasingly diverse population of individuals prepared for university study; and produce graduates who are well prepared for professions and further studies.
  - Quality of undergraduate programs: Provide modern, accredited (where appropriate) degree programs taught by well-qualified faculty who continually improve the curriculum through assessment and innovation.
  - Recruitment and retention: Provide access to the growing number of Nevadans prepared for university study, recruit high-achieving students and a diverse student body, and increase student retention.
  - Completion: Continue to foster a "culture of completion," and graduate students well prepared to succeed professionally and in future studies.

- Graduate Education: Offer high-quality master's and doctoral degree programs in fields in which the University of Nevada, Reno achieves significant research and scholarly productivity; offer professional degree programs in selected fields.
  - Quality of graduate programs: Provide modern, accredited (where appropriate) graduate programs taught by active research faculty who continually improve the curriculum through assessment and innovation.
  - Recruitment and retention: Provide access to the growing number of Nevadans well prepared for graduate study, recruit high-achieving students, and increase student retention.
  - Completion: Produce graduate students who are well prepared to succeed as researchers, teachers, and professionals.

**CORE THEME 2: Create new knowledge through basic and applied research, scholarship, and artistry in strategically selected fields relevant to Nevada and the wider world.**

**Objectives**

- Research, Scholarship, and Artistry: Improve the productivity, quality, and recognition of the work of university faculty and graduate students in creating new knowledge through research, scholarship, and artistry.
  - Productivity: Increase research productivity as demonstrated through publication of refereed articles and books, performances and exhibitions of artistic works, and presentation of papers and posters.
  - Quality: Enhance the quality and range of the university's engagement in research and artistry.
- External Support for Research, Scholarship, and Artistry: Strengthen the university's research, scholarship, and artistry through obtaining competitive funding from federal, state, and nonprofit granting agencies and developing research relationships with industry.
- New Knowledge and Innovation: Enhance the university's research accomplishment in fields of strategic significance for Nevada and its citizens.

**CORE THEME 3: Improve economic and social development by engaging Nevada citizens, communities, and government.**

**Objectives**

- Economic Development: Work in concert with government and industry to diversify and develop Nevada's economy.
- Social Development: Work in concert with community and government to improve the physical and mental health and cultural well-being of Nevada's diverse population.
- Community Engagement: Through outreach programs, provide access to informal and formal learning and services for citizens of all cultural backgrounds, ages, disabilities, and locations. Enrich the quality of life and culture in Nevada.

Indicators and metrics regarding the above core themes and objectives are being developed to measure the University's progress toward achievement of these objectives.

In addition to the above, the following units have identified their own strategic objectives for the next four years that support the University's core themes:

## Information Technology

- Increase the strategic utilization of current and next generation technologies such as virtualization, storage consolidation, and cloud computing for on-premise and remote applications.
- Accelerate the University's adoption of cyber security best practices and foster a culture of security awareness and improve compliance with governmental and industrial regulations for information management and security.
- Provide formal venues/opportunities to gather, evaluate, and communicate campus technology improvements with administrative and academic units.
- Upgrade the aging communications infrastructure to support the current and future unified communications needs of the University.
- Consolidate information technology of all units under the organizational structure of the Information Technology Department.

## University of Nevada School of Medicine

- Complete programmatic and architectural planning for a major educational and research facility to support UNSOM activities in Las Vegas, leading to potential financing plans.
- 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 application for a major NIH grant that supports such infrastructure.
- Develop academic and funding plans, including tuition differentials and tuition capture to support an increase in medical and nursing class size.
- Develop academic and funding plans for a significant increase in residency and fellowship training, particularly in Las Vegas, with a focus on programs such as subspecialty fellowships that have the greatest impact on health care needs in Nevada and will more likely keep UNSOM graduates in the state.
- Implement the consolidation and coordination of the Health Sciences complex of the University and explore and address the major medical and health care challenges in Nevada.

## Campus Facilities Master Planning

- 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. The final resolution must be comprehensive in that it must include a solution to the relocation of Human Resources, acquisition of privately-owned land adjacent university property, and the relocation of various other University functions from their current location to an alternative site(s).

- Complete a “District Development Plan” that comprises the land upon which Getchell, Lincoln Hall, White Pine, and the Virginia Street Gym are located.
- Demolish the Getchell building and replace it with a new Student Achievement Center that would 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, possible construction of a new Multi-Purpose Indoor Practice Facility, renovation of MacKay Stadium seating, and possible construction of a new Stadium Club.
- Enter into a public/private partnership agreement to develop a new graduate student/family housing complex to be built in the mid-campus area adjacent to the Knowledge Center, Joe Crowley Student Union, and Lombardi Recreation Center.
- Review of a scope of work to potentially renovate the Lombardi Center.
- Resolve new standards for both vehicular and pedestrian way-finding signage throughout campus and secure funding to implement these new standards.
- Complete an updated University Master Plan for presentation and approval by the Board of Regents in 2014.

## Academic Programs

The following programs were described in department and college strategic plans for the years 2013-2016 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/<br>Expansion of Existing<br>Program | Brief Description  | Date of Imple-<br>men-tation | Estimated Cost | Funding<br>Sources Out-<br>side of State<br>Dollars     |
|---|--|------------------------------|----------------|---|
| MA in Gender, Race and<br>Identity                    | The program has received required approvals but was not launched due to lack of funds for a necessary half position. This position has now been filled, and the program will begin accepting applications.   | Fall 2013                    | None.          |   |
| BA in Dance   | The program prepares students for dance careers in areas of performance, choreography, and production, and advances study/scholarly work in dance. The program has received required campus approvals but has not commenced due to a lectureship lost in curricular review.  | Fall 2015                    | \$32,000       | New<br>lecture-ship plus<br>existing faculty<br>support |
| 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 proposed degree would 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. | Spring 2014                  | Unknown        | Existing faculty<br>support                             |
| Minor in Chinese Studies                              |  | Fall 2014                    | \$30,000       |   |

| New Program Name/<br>Expansion of Existing<br>Program | Brief Description  | Date of Imple-<br>men-tation | Estimated Cost   | Funding<br>Sources Out-<br>side of State<br>Dollars        |
|---|--|------------------------------|--|--|
| MS in Agriculture, Animal<br>and Nutritional Sciences | Program will offer students graduate training in disciplines related to sustainable food systems through various tracks or areas of emphasis.  | Fall 2013 or Spring<br>2014  | Unknown. However, no new resource needs are anticipated. The program will be an expansion of the current MS degree program in Nutrition and will be formed using existing faculty in the department.   | None<br>anticipated  |
| Non-thesis MS Degree<br>program in Biotechnology      | The program will complement the existing BS/MS Biotechnology degree and will provide individuals with existing BS degrees the advanced training needed to be more competitive in the biotechnology job market. | Fall 2013                    | No additional cost anticipated above the cost of running the existing BS/MS Biotech program. The new curriculum with closely match the existing graduate curriculum of the BS/MS in Biotechnology program, and existing faculty from that program will participate in the new program. | None<br>anticipated  |
| BS in Molecular<br>Microbiology and<br>Immunology     | A program that will prepare students for careers in the health sciences and industries and public agencies that utilize microbial processes.   | Fall 2013                    | Undergraduate degree program will leverage existing faculty in the University of Nevada School of Medicine and \$100,000 per year in College of Science funds. Additional resources will be needed if student enrollment exceeds 100 majors.   | Existing faculty<br>will initiate the<br>degree<br>program |
| MA/Ph.D. in Neuroscience                              | A program that will prepare scientists to work in the field of neuroscience.   | Fall 2014                    | Currently unknown. Faculty in departments of Psychology and Biology currently collaborate on the BS in Neuroscience. Research-active faculty in these departments will develop graduate programs based on existing courses and research programs.                                      | Existing faculty<br>will initiate the<br>degree<br>program |
| Ph.D. in Mathematics and<br>Statistics                | A program that will prepare professional mathematicians and statisticians for careers in research, teaching, finance and industry.   | Fall 2014                    | Unknown – Faculty in the Department of Mathematics and Statistics will develop the PhD program based on their MS program and the current research activities of the faculty.   | Existing faculty<br>will initiate the<br>degree program    |

| New Program Name/<br>Expansion of Existing<br>Program | Brief Description   | Date of Imple-<br>men-tation | Estimated Cost  | Funding<br>Sources Out-<br>side of State<br>Dollars                    |
|---|---|------------------------------|---|--|
| M.S. Taxation   | The online Master's of Taxation (MTAX) program provides an opportunity for new graduates as well as mid-career accountants and other professionals to obtain a master's degree in taxation on a schedule that minimizes disruption of work and personal obligations.  | Fall 2013                    | No new resources.   | Existing faculty and resources as well as a special course/program fee |
| 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. | 2014                         | \$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.   | 2014                         | \$132,000 from existing state dollars with a request for 1 new GA position. | None   |

The process for approving new programs at the University of Nevada, Reno includes a pre-screening process at which time the University determines if sufficient existing or new resources are available to support the proposed program's needs. Only if sufficient resources are available is the program proposal then brought to the University Courses and Curricula (UCC) Committee for detailed review of the program's content and curriculum. Once a new program proposal has been reviewed by the UCC Committee and approved by the provost, it is then brought to the NSHE Academic Affairs Council and the Board of Regents' Academic and Student Affairs Committee for final approval.

As a result of this rigorous review process, the precise date of implementation is unknown for the indicated proposed new programs; however, it is expected that all programs listed will be brought for consideration during the planning horizon of 2013-2016. 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.

## Student Services

The following table summarizes the new UNR student services plans to implement in the period 2013-2016:

| New Program Name/Expansion<br>of Existing Program                         | Date of<br>Implementation    | Estimated Cost             | Funding Sources Outside<br>of State Dollars |
|---|------------------------------|----------------------------|---|
| Construct new graduate/family housing                                     | Fall 2014                    | Private/Public Partnership | Private Development                         |
| Expand undergraduate housing  | Fall 2015<br>through<br>2020 | \$90 million               | Auxiliary                                   |
| Develop success program for admissible<br>but identified at-risk students | Fall 2014                    | None                       | None  |

| New Program Name/Expansion of Existing Program  | Date of Implementation | Estimated Cost     | Funding Sources Outside of State Dollars |
|---|------------------------|--------------------|--|
| Implement the early warning system to alert students failing courses                      | Fall 2013              | None               | None                                     |
| Create a career program to assist students in preparing for tomorrow's changing workplace | Fall 2013              | \$280,000 annually | None                                     |
| Create an effective transfer student orientation  | Summer 2013            | \$20,000           | Student fees                             |

## Research Initiatives

The most significant research goal for 2013-16 and beyond is to increase research competitiveness among Tier One institutions via:

### Reduction of barriers to research:

- Increase number of Grants Manager personnel at the college level.
- Increase clinical and translational research via support for clinical research managers.
- Invest in electronic software to manage and organize business transactions related to research both pre- and post-award.

### Supporting research:

- Increase the number of and base stipend amounts for graduate assistantships to maintain national competitiveness.
- Increase start-up support for tenure-track hires and invest strategically in research faculty hires.
- Invest in renovation of research facilities to address newer technologies and equipment needed for cutting-edge research.
- Maintain strong support for key core research facilities.
- Invest in grants management software to increase efficiency.
- Provide grantsmanship and technical editing services for grant proposal submissions.
- Increase the range of core research facility support services, including adding technical research support positions.

### Incentivizing research:

- Identify areas for opportunity/high profile hires in key areas of research excellence, e.g. Great Basin and arid land resource foci.
- Reinstate seed grant program focused on areas of high potential for research excellence.
- Provide on a competitive basis additional research graduate assistants.
- Sustain a seed fund to stimulate cross-disciplinary research efforts.



## 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 incorporates an innovative course schedule that combines a wide array of class offerings with the strategic integration of web-enhanced, online and hybrid courses.

Guiding the pursuit and implementation of these and other endeavors for 2013-2014 are the following strategic objectives:

- 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.
- Continue to pursue Hispanic Serving Institution Status.
- Increase student retention and degree completion, particularly among first-generation, under-represented students, by improving comprehensive academic support programs, freshman experience courses, advising programs, and overall student quality of life.
- Improve curricula through a more rigorous and comprehensive college-wide assessment of student learning.

- Introduce creative curricular and scheduling solutions that increase graduation rates and decrease time to degree attainment.
- Establish strong 2 + 2 programs and articulation agreements with incentives for students who have earned an associate's degree.
- Increase post-baccalaureate programs leading to certificates and endorsements.
- Expand extramural funding needed to support the success of first-generation and under-represented students.
- Meet student needs and promote retention through data-driven improvements to curricula, student support services, and instruction.
- Increase private funding and donor contributions.
- Improve student financial and scholarship services.
- Achieve and retain appropriate independent regional and specialized professional accreditations in the disciplines and schools.
- Partner with biotechnology firms to create certification programs that enhance the skills and workforce viability of our science graduates.
- Revamp remedial curriculum to facilitate student skill-acquisition while simultaneously decreasing costs and time to completion.
- Create and strengthen partnerships that provide a synergistic and interdependent relationship with the southern Nevada community.
- Broaden faculty implementation of cutting edge instructional technology.

## Academic Programs

Nevada State College will continue to work toward meeting its strategic objectives as listed below (the objectives are not prioritized). The following academic programs will be pursued in the upcoming biennium.

- Bachelor of Arts in Criminal Justice. No new dollars, faculty are already in place for existing law enforcement programs.
- Bachelor of Science in Mathematics. \$75,000, one new faculty position. Additional faculty are in place for existing Secondary Education Mathematics program.
- Expand bilingual offerings in the Teacher Preparation Program. \$75,000, one new faculty position.
- Expand RN-BSN program to meet existing demand. \$200,000, two new faculty positions.

## Student Services

During the next two years (2013-2014), Nevada State College will expand upon the following student service initiatives:

| Brief Description of Expanding Student Services   | Date of Implementation | Estimated Cost     | Funding Sources Outside of State Dollars |
|---|------------------------|--------------------|--|
| Expand the transfer recruitment office to create a more seamless transfer process for prospective community college students  | 2013                   | \$60,000           | None                                     |
| Expand the Student Academic Success Center to include more comprehensive tutoring services and longer hours of operation  | 2013                   | \$150,000          | Student Fees                             |
| Develop and implement an Office of Community Engagement, Inclusive Excellence and Diversity Initiatives to enhance the success of all student populations on campus | 2013                   | \$150,000          | None                                     |
| Establish an Office of Sponsored Projects to expand extramural funding on campus  | 2013                   | \$120,000          | None                                     |
| Secure funding to continue to expand undergraduate research opportunities for underrepresented students in STEM disciplines   | 2013                   | \$170,000 per year | Federal grant funding                    |
| Improve generalized academic support services through a coordinated effort – involving advising, tutoring, and financial aid – that assists at-risk students        | 2014                   | \$100,000          | Student Fees                             |
| Establish a career services center  | 2014                   | \$75,000           | Student Fees                             |
| Secure external funding to expand activities and initiatives that promote the engagement of underrepresented students   | 2014                   | \$100,000 per year | 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 2013-2016 in Academic Affairs include the following:

#### **Improve the quality and innovation of CSN's programs**

- Obtain/maintain external program accreditation where possible
- Publish and utilize annual outcomes assessment data
- Collaborate with local entities to ensure credit and non-credit programs are innovative and responsive to the changing needs of local business and industry

#### **Improve the quality of facilities and equipment**

- Ensure that facilities and equipment are meeting or exceeding appropriate standards

#### **Improve the quality of instruction**

- Enhance faculty professional development opportunities that encourage quality teaching
- Expand and enhance the College's efforts to recognize faculty accomplishments in the area of teaching
- Maintain and support a faculty evaluation policy that encourages quality teaching

#### **Build a transparent culture of accountability and evidence in all areas of the College**

- Implement a comprehensive institutional effectiveness data management and reporting model
- Expand the college-wide outcomes assessment program
- Publish comprehensive administrative and academic data

#### **Attain the desired ratio of full-time to part-time faculty**

- Increase the number of full time faculty members relative to the number of part-time faculty members

**Hire employees who meet or exceed minimum qualifications**

- Ensure new hires meet or exceed CSN quality standards

**Improve the faculty, administration, and staff evaluation compliance**

- Monitor compliance with faculty, administration, and staff evaluation policies

**Enhance the part-time faculty support system**

- Identify part-time faculty professional development needs through surveys and feedback
- Improve lines of communication to and from part-time faculty

**Offer classes on days and times and in the format most desired by students while maximizing classroom utilization**

- Optimize classroom utilization using People-Soft or other space-utilization systems
- Design a schedule that is desirable to students and encourages students to enroll at maximum levels
- Engage Noel Levitz consultancy

**Provide a variety of courses and programs online**

- Increase the number and variety of courses and programs offered online

**Provide classes in a wide variety of locations**

- Operate a CSN campus in each quadrant of Las Vegas as resources allow
- Operate a learning center site in many areas within CSN's service region, as resources and student demand allow

**Encourage students to complete degrees/certificates in a timely manner**

- Encourage students to complete their academic goals, including
  - Complete degrees three years from declaration of major
  - Complete certificates two years from declaration of major
  - Complete degrees before transferring to four year institutions

**Manage enrollments for improved alignment of student demand and resources**

- Encourage academic departments to plan to offer and schedule courses at budgeted enrollment levels
- Implement strategies to evaluate student demand and enrollment patterns

**Improve overall educational outreach and community relations**

- Implement strategies to expand and enhance partnerships with secondary and postsecondary institutions, community partners, and other training providers
- Implement strategies to enhance partnerships with local business and industry
- Increase community representation on advisory committees

**Build a faculty administration, and staff reflective of the ethnic diversity of CSN's service area**

- Implement strategies to develop hiring practices that encourage the development of a faculty, administration and staff who reflect the ethnic diversity of CSN's service area
- Implement strategies to develop professional advancement practices that encourage a faculty administration and staff who reflect the ethnic diversity of CSN's service area

The goals, objectives, and strategies for 2013-2016 in Student Services include the following:

**Offer classes in a sequence that would allow timely completion of goals**

- Implement strategies to encourage students to complete their academic goals, including:
  - Complete degrees or certificates
  - Complete meaningful course sequences
  - Complete successful transfer
  - Complete degrees before transferring to four-year institutions
  - Complete developmental coursework early in college career
  - Declare a major early in college career
- Implement strategies to encourage departments to offer and schedule courses in a sequence that facilitate timely completion
- Implement strategies to encourage students to
  - Complete degrees in three years from declaration of major
  - Complete certificates in two years from declaration of major

**Manage enrollments for improved alignment of student demand and CSN resources**

- Encourage academic departments to plan to offer and schedule courses at budgeted enrollment levels
- Implement strategies to evaluate student demand and enrollment patterns

**Provide effective developmental education to students**

- Encourage students to enroll and complete developmental courses within first 30 credits
- Expand and enhance advising and support services that encourage student success in developmental courses
- Encourage academic departments to develop strategies to increase student success in developmental

**Provide support services to foster academic goal achievement**

- Enhance support services that encourage student persistence, completion, and transfer
- Implement strategies to increase student utilization of service that encourage persistence, completion and transfer

**Provide as much financial aid to as many students as possible**

- Work to ensure adequate resources are available to effectively serve students
- Implement strategies to increase student awareness and understanding of financial aid opportunities
- Implement strategies to increase timely and accurate completion of financial aid application(s)
- Implement strategies to increase student utilization of available financial aid

**Enhance support services to students facing barriers to access and success (e.g. online students, underrepresented minorities, non-traditional students)**

- Enhance the support services, as dictated by need, that reduce barriers to access and success
- Increase student utilization of services and activities that reduce barriers to access and success

**Build a student body reflective of the ethnic diversity of CSN's service area**

- Implement strategies to improve the recruitment, matriculation, retention, and persistence of students to develop student body that is reflective of the ethnic diversity of CSN's service area.

**Build a faculty, administration, and staff reflective of the ethnic diversity of CSN's service area**

- Implement strategies to develop hiring practices that encourage the development of a faculty, administration, and staff who reflect the diversity of CSN's service area
- Implement strategies to develop professional advancement practices that encourage a faculty administration and staff who reflect the ethnic diversity of CSN's service area

**Enhance support services to students from underrepresented groups facing barriers to access and success**

- Enhance support services, as dictated by need, that reduce barriers to access and success faced by students from underrepresented groups
- Increase utilization by students from underrepresented groups of services that reduce barriers to access and success

**Provide effective advising and support services that are responsive to the needs of a diverse student body to improve student persistence, completion, and transfer**

- Enhance advising and support services that are responsive to the needs of students to improve student persistence, completion, and transfer
- Implement strategies to increase student utilization of advising and support services that are responsive to the needs of students to improve student persistence, completion, and transfer

## Academic Programs

| New Programs Name/<br>Expansion of Existing<br>Programs | Brief Description   | Date of<br>Implementation | Estimated Cost   | Funding Sources<br>Outside of State<br>Funds   |
|---|---|---------------------------|--|--|
| Engineering<br>Technology, BAS                          | This program combines the technical knowledge earned in the student's Associate of Applied Science degree with a broader technical and managerial education. The focus will be on production, applications, and implementation in sectors such as defense contractor, electronics, manufacturing, networking, or technical services and sales   | Fall 2014                 | \$120,000<br><br>Includes a half-time director and one administrative assistant. All coursework to be delivered by existing faculty using current facilities.  | Donor funding for equipment and library/resource materials. Student fees, State supported budget to maintain program.                  |
| Facility Operations<br>Technology, AAS                  | Facility operations technology represents an amalgam of skills used in operation and maintenance of large structures. The skills areas required include heating, ventilation, air conditioning, electrical, mechanical, welding, plumbing, carpentry, and computer-based control systems  | Fall 2014                 | Interdisciplinary approach to existing courses with existing faculty and equipment. Only expenditure would be for ancillary library materials  | Current equipment is sufficient to begin the program. Additional equipment gifts will be solicited from distributors and manufacturers |
| Digital Media<br>Production, AAS                        | DMP is a multidisciplinary program of technical and design skills to develop artistic product for a digital environment. This program is a fusion of Graphic Design, Art, Animation, Communications, Gaming, Photography, Videography, and Information Systems  | Fall 2014                 | This program reflects an interdisciplinary approach to existing courses with existing faculty and existing equipment. Only possible expenditure would be for ancillary library support materials   | Current equipment and facilities are sufficient to establish the program   |
| Archaeology, AA   | This program will provide students with a sound academic and practical preparation for two goals: the ability to be employed as an archaeological technician for contracting firms (CRM) and for the eventual completion of a bachelor's degree at a four year institution. There is a need in the contracting community for trained individuals with the technical expertise and practical experience necessary to undertake archaeological work in the State of Nevada. It will require the creation of two additional courses – ANTH226: Archaeological Field methods Excavation; and ANTH 227; Artifact Analysis Laboratory | Fall 2014                 | @ \$3000 for equipment for field work –<br>Faculty is already in place on West Charleston and Cheyenne Campuses; a laboratory and classroom facility is being acquired from the Bureau of Land Management (BLM) at Red Rock Canyon Recreation Lands (RRCRL) in Las Vegas, NV via a memorandum of understanding (MOU). Field locations in RRCRL and Valley of Fire State Park are already available | Student fees, State supported budget, grants will be sought from outside agencies if possible  |

| New Programs Name/<br>Expansion of Existing<br>Programs        | Brief Description   | Date of<br>Implementation | Estimated Cost        | Funding Sources<br>Outside of State<br>Funds  |
|--|---|---------------------------|-----------------------|---|
| Applied<br>Communication,<br>Certificate of<br>Achievement     | This program will provide students with communication skills and knowledge that will supplement many other programs of study. It will encourage interdisciplinary collaboration. No other NSHE 2-year college offers this certificate   | Fall 2013                 | No additional funding | Current equipment and facilities are sufficient to establish the program                          |
| Fire Science<br>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 2013                 | \$65,000              | Enrollment will be sufficient to establish the program. This will be offered as an online format. |
| Political Campaign<br>Management Certificate<br>of Achievement | This program will provide the training necessary for undergraduate students to prepare for employment in the work sector of campaign and political management.  | Fall 2013                 | \$28,000              | Donor funding will be sought to support faculty and start up program expenses.                    |

## Student Services

| New Programs Name/<br>Expansion of Existing<br>Programs | Brief Description  | Date of<br>Implementation | Estimated Cost                      | Funding Sources<br>Outside of State<br>Funds |
|---|--|---------------------------|-------------------------------------|--|
| Increase Student Access /<br>Financial Aid              | Reorganize and reassign key staff  | 2013                      | No additional costs at<br>this time | Current funding sources<br>to be utilized    |
| Increase Retention Ef-<br>forts                         | In order to better support current students, staff and some fiscal resources will be utilized                              | 2013                      | No additional costs at<br>this time | Current funding sources<br>to be utilized    |
| Clinical and Psychological<br>Services                  | Provide direct services to the Henderson Campus along with other centers. Develop internship program on all three campuses | 2014                      | \$58,000-\$89,000                   | State funds / Fee for<br>services            |
| Student Affairs Online                                  | To provide online services to the increasing number of students completing courses and degrees online                      | 2013                      | Costs have not been<br>determined   | State funds                                  |

| New Programs Name/<br>Expansion of Existing<br>Programs               | Brief Description  | Date of<br>Implementation | Estimated Cost                 | Funding Sources<br>Outside of State<br>Funds |
|---|--|---------------------------|--------------------------------|--|
| ERP / Integrate   | In order to complete transition to the new Integrate, staffing will need to be enhanced and backfilled   | 2013                      | Costs have not been determined | State funds / Foundation grants              |
| Non-traditional Students  | To identify students who have optioned out of college prior to completion  | 2014                      | Costs have not been determined | Grants                                       |
| Hispanic Serving Institution (HSI)                                    | Provide the appropriate infrastructure and support for the increasing number of Hispanic and or limited English speaking students                | 2013                      | Up to \$100,000 per year       | Grants                                       |
| Expand outreach and support services provided to veteran's population | Expand the type of available services and the staff required for delivery of effective services which lead to increased enrollment and retention | 2013                      | Up to \$150,000 per year       | Grants                                       |
| Achieving the Dream   | A sustained, disciplined, data-driven and informed focus on improving student success.   | 2013                      | Up to \$200,000. Per year      | State Funds / Grants                         |



## Great Basin College

### Strategic Objectives

Creating Great Basin College's Academic Affairs and Student Services strategic program objectives for 2013-2016 are challenging due to the uncertain future of funding. GBC plans to maintain its current programs in fulfilling its unique, wide-ranging community college mission. This mission is to deliver quality programs as student needs dictate within an expansive rural-frontier service area. The implementation of several plans has been delayed pending funding.

The primary focus is to strengthen and maintain existing programs. Much emphasis is in providing workforce development and community service offerings, adding certificates and degree where appropriate demand exists. Within student services, the programs targeted for planning include student retention, student housing, student access, and student life. Seeking appropriate new and expanded programs for Nye County remains a priority.

GBC will receive an accreditation review and site visit by NWCCU in the spring of 2013. Following this, a new long-term institutional strategic plan will be developed in 2013-2014.

### Academic Programs

| New Program<br>Name/Expansion of<br>Existing Program                  | Brief Description   | Date of<br>Implementation | Estimated Cost                | Funding Sources<br>Outside of<br>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           | 2013-2016                 | As needed and can be afforded | Grants and private funding are always sought where and when possible |
| Expand and extend programs into Nye County                            | Conduct surveys of employers and prospective students, begin and expand programs into Nye County as need dictates | 2013-2016                 | As needed and can be afforded | Unknown at this time, possibilities exist                            |

| New Programs Name/<br>Expansion of Existing<br>Programs                 | Brief Description  | Date of<br>Implementation | Estimated Cost  | Funding Sources<br>Outside of State<br>Funds   |
|---|--|---------------------------|---|--|
| AAS degree in the area of<br>alternative energy                         | Electrical and mechanical programs tailored<br>to specific needs for alternative energy.<br>Recognition and Certificates of Achievement<br>are also objectives | 2013-2016                 | To be determined  | Grants (\$325,000),<br>appropriations (\$2<br>million), and equipment<br>(\$85,000) have already<br>been received or<br>allocated that<br>respectively will assist in<br>providing solar,<br>geothermal and wind<br>energy training<br>opportunities |
| Expand and maintain mine<br>and industry workforce<br>training programs | Continue to evaluate opportunities for<br>expanding contract training programs with<br>mining companies and other industries                                   | 2013-2016                 | Minimal, mostly related<br>to facilities. Staff is in<br>place          | Largely self funded<br>through contract<br>agreements  |
| Expansion of Welding<br>program   | Obtain and equip mobile<br>welding modular units   | 2013                      | \$200,000 (including<br>\$100,000/yr ongoing)                           | Funding through<br>contract training   |
| Expand Diesel AAS<br>program  | Add a third section of the<br>48-week cohort program   | 2013                      | \$100,000/yr  | Operating funds from<br>Barrick donation   |
| Expand Electrical AAS<br>program  | Add a third section of the<br>48-week cohort program   | 2013                      | \$100,000/yr  | Donation from<br>Barrick Goldstrike  |
| Expand Industrial<br>Millwright AAS program                             | Add a third section of the<br>48-week cohort program   | 2013                      | \$100,000/yr  | Potential funding<br>through a private<br>company  |
| Graphic Arts BAS  | Add an emphasis to the existing BAS<br>program, potential collaboration with<br>other colleges   | 2013                      | \$20,000/yr   | None identified  |
| Expand Land Surveying/<br>Geomatics BAS degree                          | Obtain ABET accreditation, expand online<br>program  | 2014                      | \$100,000/yr  | Grants currently being<br>solicited to initiate<br>program   |
| Instrumentation<br>certification expansion                              | Expand to include online program   | 2014                      | \$100,000/yr  | Possible donations to<br>initiate program  |
| Transition AAS Nursing<br>(ADN) program to BSN<br>degree only           | With current trends, the ADN program will<br>be discontinued; the RN-to-BSN program<br>will become a freshman admission BSN<br>program                         | 2015                      | \$100,000/yr, potentially<br>only redistribution of<br>current funding. | None identified  |
| EMT-Paramedic AAS<br>degree   | Cooperative opportunities being<br>developed. Originally planned for 2008.<br>EMS coordinator in place.  | 2015-16                   | \$100,000/yr  | Grants/donations being<br>solicited  |
| Expand BSN Nursing<br>program   | Extend BSN program to Nye County,<br>pending funding source  | 2016                      | \$100,000/yr  | External funding source<br>is needed to begin<br>program   |

## Student Services

In 2012, the Board of Regents passed a revision, which shortened, the Great Basin College mission: Great Basin College enriches people's lives by providing student centered, post-secondary education to rural Nevada. Three themes have arisen from this: Provide Student Enrichment, Build Bridges, Serve Rural Nevada.

The 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.

Student Services is committed to student success and as such access to support services is not dependent on students' zip code. 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 on-line.

| New Programs Name/<br>Expansion of Existing<br>Programs  | Date of<br>Implementation | Estimated Cost                   | Funding Sources Outside of<br>State Funds  |
|--|---------------------------|----------------------------------|--|
| 1.5 FTE iNtegrate/PeopleSoft<br>Support position   | 2012-13                   | \$60,000                         | iNtegrate/Tech Fees  |
| Housing – finish 3 <sup>rd</sup> wing in<br>Griswold Hall  | 2012-13                   | To be determined                 | Barrick & Griswold donation<br>plus self-support                                     |
| 1.0 FTE Student Retention<br>Specialist<br>Two part-time Advisors<br>Four part-time Tutors located in<br>Battle Mountain, Ely,<br>Pahrump and Winnemucca | 2012-13                   | \$75,000<br>\$58,080<br>\$21,920 | FY 13 Registration Fee increase<br>(Supported by students for specific<br>positions) |
| 1.0 FTE Security Officer for<br>Pahrump Center   | 2013-14                   | \$45,000                         | Unknown at this time   |
| FTE Admission & Records<br>(Classified Position)   | 2015-16                   | \$45,000                         | Unknown at this time   |
| 1.0 FTE Assistant Housing<br>Coordinator   | 2015-16                   | \$30,000                         | Self-supporting through housing fees   |
| 1.0 FTE Student Life /<br>Student Union"<br>Program Manager  | 2015-16                   | \$50,000                         | Unknown at this time   |



## Truckee Meadows Community College

### Strategic Objectives

#### 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
- 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

## Strategic Initiatives

TMCC has established 9 strategic initiatives under 3 Core themes. The core themes and associated strategic initiatives are as follows:

### Core Theme I: Supporting lifelong learning through strengthening institutional infrastructure and partnerships within our diverse community.

- Stewardship of college resources through responsible human resource development and management.
- Enhance and ensure a welcoming and diverse environment that is mutually respectful, socially supportive, accessible, safe, physically pleasing, provides opportunities for personal growth.
- Create, expand, and/or strengthen partnerships with civic, community, educational, and business/industry organizations to provide lifelong learning opportunities.
- Serve as a resource for the community by providing a variety of opportunities for cultural and educational enrichment.

### Core Theme II: Academic Excellence

- Implement a comprehensive process to assess student learning outcomes and use the results to consistently improve curricula and the delivery of instructional programs and services.
- Establish and implement college-wide processes that include regular assessment of all college programs and services delivered in support of academic programs.
- Regularly assess the skills needed to meet workforce needs in the service area.

### Core Theme III: Student Success

- Provide services for students to achieve college readiness and increase student retention, persistence, graduation, and transfer rates.
- Maintain and regularly evaluate student progress and achievement.

## Academic Programs

The following table summarizes new academic programs that TMCC plans to implement in the next four years (2013-2016):

| New Program<br>Name/Expansion of<br>Existing Program | Brief Description   | Date of<br>Implementation | Estimated Cost | Funding Sources<br>Outside of<br>State Dollars |
|--|---|---------------------------|----------------|--|
| Energy Technologies AAS                              | This is a new degree program that consolidates courses previously taught as a Renewable Energy emphasis under Construction Technologies. The new degree gives us the ability to expand the curriculum beyond its construction applications. | Fall 2013                 | None           | N/A  |

| New Program Name/Expansion of Existing Program                 | Brief Description   | Date of Implementation | Estimated Cost                                 | Funding Sources Outside of State Dollars                |
|--|---|------------------------|--|---|
| English – Technical writing certificate                        | Develop a certificate in Technical Writing  | Fall 2013              | None   | N/A   |
| Food Processing emphasis, Manufacturing Technologies AAS       | Food Processing expands on the existing Manufacturing Technologies AAS. It consolidates existing courses from Production Systems, Nutrition/Dietetic, and Culinary Arts and includes three new courses in response to the growing food manufacturing industry in northern Nevada.   | Fall 2014              | \$50,000 for Food Science laboratory equipment | Private contributions (TBD) and internal reallocations. |
| Aviation Maintenance emphasis, Transportation Technologies AAS | Aviation Maintenance expands existing Transportation Technologies AAS. In response to the governor's economic initiatives, the college is researching the feasibility of this program.  | Fall 2016              | \$2,500,000                                    | Private and industry contributions.                     |
| Graphic Communications, AA                                     | Develop Graphic Communications AA for transfer to a NSHE university.  | Fall 2013              | None   | N/A   |
| Undergraduate Research Initiative                              | Implementation of the Community College Undergraduate Research Initiative program.  | Spring 2013            | None   | External funding  |
| Community Health Sciences Emphasis                             | Implementation of Community Health Science emphasis   | Spring 2013            | None   | N/A   |
| Logistics Technician Certificate of Achievement                | This program will train entry-level workers for the growing logistics and distribution industry in northern Nevada. It consolidates existing courses from our Production Systems and Logistics Management programs and will adhere to national certification standards established by the Manufacturing Skills Standards Council. | Fall 2013              | None   | N/A   |

## Student Services

The following table summarizes new student services that TMCC plans to implement in the next four years (2013-2016):

| New Program<br>Name/Expansion of<br>Existing Program | Brief Description   | Date of<br>Implementation | Estimated Cost   | Funding Sources<br>Outside of<br>State Dollars   |
|--|---|---------------------------|--|--|
| Success First  | The Success First program goal is to increase the college readiness, of first time, full time, first generation students at TMCC. | August 2009               | <u>\$870,801</u><br>\$465,600 Personnel and Fringe<br>\$405,201 Operations including \$100,000 for tuition | Wal-Mart Foundation, NV Energy Foundation, Nell J. Redfield Foundation, Susanne and Gloria Young Foundation, E.L. Cord Foundation, and TMCC faculty and Staff<br>Current State and Federal Grants, NIH funded by NV INBRE, College Access Challenge Grant<br>TMCC Student Fees (8%), TMCC Summer School Revenue, Federal Financial Aid |



## Western Nevada College

### Strategic Objectives

#### **Mission**

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

The most recent WNC Strategic Plan reflects an institutional transition from a focus on student enrollment to a focus on student success. Strategies support students in their attainment of degrees, certificates, and completion of employment training programs. WNC is transforming itself from an open-access, course-oriented college to one focused on producing graduates of programs that support state economic development in the service area.

Western Nevada College supports its mission with three core themes. All of WNC's practices, initiatives, aspirations, and accomplishments manifest the college's mission in terms of these interrelated themes. Key indicators will serve as measures of success for each theme.

#### **Theme #1: Student Success**

The Student Success theme is divided into the following two primary objectives:

- Students graduate with a degree or certificate
- Students are engaged in the college experience

The first objective reflects key educational practices designed to guide and support students as they obtain a degree or certificate. The second objective reflects the importance of providing opportunities for students to engage in the college experience through connecting with faculty, staff, and their peers.

Four educational milestones that delineate a student successfully obtaining a degree or certificate at the college articulate these milestones, note activities in place to support them, and formulate initiatives to further their effectiveness.

- Students articulate their educational goals
- Students successfully complete courses
- Students continue their education at WNC
- Students successfully transfer to other institutions

National data demonstrates that active student involvement and participation in the college environment promotes academic achievement and retention. WNC courses engage students in academic content, issues, and critical thinking. Student organizations, athletics, peer mentors, and student ambassadors promote networking, scholarship, and creativity. Students are also involved in leadership activities that include student government and college committees.

### **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**

Strategic planning by WNC Division Chairs includes schedule development that supports timely completion of academic goals. Classes will be offered in a sequence that supports the completion of degrees and certificates in an efficient, cost effective, and timely manner. To increase the availability of courses, the use of IAV instruction will be increased across the service area.

WNC is committed to increasing the number of full-time academic instructors as soon as the fiscal reality allows for this increase. The emphasis on academic instruction will support student success, completion, and retention. Collaborative efforts between Academic Affairs and Student Services will increase faculty advising, student support, and intrusive intervention strategies. Collaboration is important in the academic planning of WNC. Two essential priorities of academic planning will be to hire full-time academic faculty and strengthen academic program assessment of all WNC programs.

Support for existing programs will be critical to the success of both faculty and students. As opposed to proposing new academic programs, the institution is focused on offering quality programs to a wide geographic service area. Instructional delivery will require the use of distance education modalities, including online, IAV, hybrid courses, and Mediasite. Emphasis will be placed on faculty training, student preparation, technical knowledge, and course support. Resources will be necessary to support distance education. The institution recently adopted a Quality Matters standard for online courses. Students and faculty will prepare for a higher level of student

engagement. Students will also be guaranteed a high academic standard for all classes offered online. Distance education courses will support the completion of a two year degree in a two year timeframe.

The continuation of instruction and services for a service area that exceeds 18,000 square miles continues to be challenging, but it has remained an important component of the institutional strategic plan. College resources will continue to pay for classroom facilitators, test proctors, peer mentors, and a Distance Education Coordinator. College librarians and staff support online and IAV instruction. The institution recognizes the student success equals institutional success.

WNC will continue expanding its partnerships with community colleagues in the health care and local manufacturing industries. The Department of Training and Rehabilitation has agreed to fund some training opportunities in Welding. Similar programs are planned in Automotive and Certified Nursing Assistant training. Resources have been invested in the improvement of facilities and equipment in those programs. It is the goal of the college to have every technical training program industry-certified by the end of 2015. The college will also offer continual skill upgrade training opportunities through credit and non-credit workforce development programs.

Partnerships with Nevada State College and the University of Nevada, Reno assist students in completing four year degree programs in high demand professions. Recently, students have been offered the opportunity for early advising and admission into UNR upon completion of an Associate Degree. Students will receive advising from both the college and the University, while they are enrolled at WNC.

Technical advisory boards and community advisory boards remain important in the academic planning process at WNC. Some of the current academic programs offered at WNC will be updated through the planning process to both reflect changes in the industry and to attract students into new fields of study. Technical program updates will both modify curriculum and degree titles. Streamlining degrees will make it easier for students to complete degree requirements in a four semester sequence.

The following programs will be considered by WNC during the academic planning process, although the exact date of implementation for funding or resource reallocation is unknown. When possible, external funding sources will be utilized for partial or full program costs, as well as technology and equipment replacements.

| New Program<br>Name/Expansion of<br>Existing Program | Brief Description  | Date of<br>Implementation | Estimated Cost   | Funding Sources<br>Outside of<br>State Dollars |
|--|--|---------------------------|--|--|
| Applied Industrial<br>Technology                     | Consolidation of several<br>technology programs that<br>prepare students to meet<br>Nevada workforce needs   | 2013                      | \$0  | State - reallocation of<br>current funds       |
| Bachelor of Applied<br>Technology                    | Designed to encourage students<br>to complete an AAS in a Career<br>and Technical discipline, and<br>continue through the completion<br>of a BTech degree. | 2014                      | None. - courses are<br>currently offered at<br>the institution | State. private funding,<br>and grants          |

| New Program Name/Expansion of Existing Program | Brief Description   | Date of Implementation | Estimated Cost       | Funding Sources Outside of State Dollars        |
|--|---|------------------------|----------------------|---|
| Industry Certificates                          | In response to local, state, and national industry demands, certificates will be designed to recognize both nationally portable and locally needed workforce training certifications.   | 2013-2016              | unknown at this time | Third Party Industry, Workforce Training Grants |
| Bachelor of Science in Nursing                 | In response to statewide conversations, the college will consider the implementation of a BSN program that provides the continuation of the current program. This may become critical to the service area if local health care facilities and the State Board of Nursing increase the educational requirement for nursing professionals in the state. | Unknown                | \$200,000.00         | Private Funding & Grants                        |

## Student Services

The continuation of strong collaborative efforts between academic and student support faculty and staff is critical in student and institutional success. A number of college initiatives, including deadlines for fall and spring full-time student admissions, mandatory orientation, advising, placement, and midterm grade reports for all students, have been incorporated in an institutional “Project Graduate” initiative. Key to the success of this program is faculty advising, student cohorts, peer mentoring, and on-going advising. The program supports not only timely degree/certificate completion, but also supports university transfer and workforce training completion.

The following table summarizes new student services that WNC plans to implement in the next four years (2013-2016).

| New Program Name/Expansion of Existing Program        | Date of Implementation                                  | Estimated Cost  | Funding Sources Outside of State Dollars |
|---|---|---|--|
| Expand Mandatory Orientation, Advising, and Placement | 2013, estimated cost for additional advisors/counselors | \$150,000.00  | Funding Source, Unknown at this time.    |
| Increase Financial Aid Services to Students           | 2014  | Additional advisors/counselors \$150,000.00, Funding Source | Unknown at this time                     |
| Increase Outreach to Rural Students                   | 2014  | Outreach Coordinator, \$75,000.00                           | Unknown at this time                     |
| Project Graduate                                      | 2013-2016   | Coordinator and Peer Mentors, \$125,000.00                  | State Funds & Student Fees               |



## 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 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.

## Education Initiatives

DRI’s educational initiatives include direct participation in campus teaching activities along with the mentoring of students. 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 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 three NSHE research 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 geomicrobiology 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.

**Statewide Renewable Energy Education Program**

As part of current Department of Energy grant, DRI is collaborating with UNLV and UNR to develop and integrated system-wide undergraduate and graduate degree programs with participation from traditional departments in engineering, environmental sciences, political science, economics, and business at the university, community college, and college levels.

**E-learning in the Environmental Sciences**

DRI will work to assess 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 assess 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.

- **High performance computing 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<sub>2</sub>, 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<sub>2</sub>, 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.