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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:

1. The Board of Regents shall prepare a comprehensive plan for the next 4 years which explains:
   
   [a] Any anticipated new programs and expansions of existing programs of instruction, public service or research, itemized by year and by purpose;

   [b] The anticipated cost of each new or expanded program described under paragraph [a];

   [c] The amount and source of any money anticipated to be available, from sources other than legislative appropriation, to meet each item of anticipated cost listed pursuant to paragraph [b]; and

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

2. The Board of Regents shall biennially bring the plan up to date for the ensuing 4 years, and shall present the revised plan to the Legislature not later than February 1 of each odd-numbered year.

Thus, this report summarizes the institutions’ academic and research plans, also in accordance with Board policy (Title 4, Chapter 14, Section 3). However, 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 current fiscal 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 2010 Plan for Nevada’s Colleges and Universities

In fall 2010, Chancellor Daniel Klaich and the NSHE institutional presidents developed and presented to the Board of Regents for approval a Plan designed to transform public higher education in Nevada. It is repeated here in its entirety to give context to the academic plans that are reliant on new ways of doing business by all of NSHE colleges, universities, and DRI.

As Nevada struggles in this difficult time of recession and high unemployment, it is time to acknowledge that only through a robust and adequately funded education infrastructure and in particular higher education will we ever achieve the diversification and growth all Nevadans need. Nevada must make a long term commitment to excellence in our colleges and universities and to the level of funding necessary to support that excellence. In the immediate circumstances, however, it is incumbent on the state’s public colleges and universities, its primary economic engine, to examine carefully how they can perform within the limited resources available today, ensuring that the state is positioned as best as it can be to recruit, retain, and grow the industries and businesses needed for a brighter future. This calls for a greater number of Nevadans with degrees, certificates, and workforce skills, along with a strong research enterprise, to support the new economy. How can this be accomplished?

The steps that will need to be taken will not be easy or without risk. They will demand considerable change in the way higher education works, both in the administrative area and in the classroom. Just as the private sector is changing its business model, enduring cutbacks, and suffering the pain of seeing old dreams fade, so too will the Nevada System of Higher Education (NSHE) have to reconfigure and redefine its vision for its future. Old patterns of action and thought will be replaced by a new vibrant vision with a focus on quality and access in everything Nevada higher education does. Improvements in quality must lead to both greater efficiencies and enhanced performance that will translate directly to more students graduating with degrees or certificates to build the state’s economy.

To start this examination and change, NSHE propose a series of key steps for consideration. While some may prove longer term, care must be taken to view these proposals as a whole. In other words, if only a few are implemented, the impact will be slight and the future will be just as predictable as the past. Change is never easy for organizations, especially when it translates into significant new ideas. Sacrifice will be called for on the part of every faculty and staff member. Yet the changed culture that will result will be stronger and more vibrant, building a justifiable pride for each employee in being part of this excellent system of higher education.

Let us be clear as well that this is not a one way street. In order to achieve the mutual goals of pulling Nevada out of the current recession and diversifying
our economy, Nevada must make not only make a long term funding commitment, but also some substantial changes right now in the way it funds higher education in order to allow the institutions the freedom and flexibility, accompanied by accountability, to do their jobs.

State and Student Support. Both state funding and student tuition and fees will need to be re-examined.

- **Student Tuition and Fees.** The NSHE agreement with the state provides that a large portion of student fees and all tuition (out-of-state student charge in addition to fees) “count” when determining the level of funding within the state-supported operating budget. Going forward, if state general fund support drops, depending on the level of decrease in state support, student fees and tuition are likely to rise to prevent unsustainable decreases in the overall budget. Students have historically supported actions needed to maintain excellence in their programs, even fee increases. Given that reality, changes in current policies and practices are called for. First, NSHE proposes that fees paid by in-state students and tuition for out-of-state students should remain at each institution and not be counted within the state supported operating budget. This would require a revamped state budget agreement that stipulates that out-of-state students will not count toward the generation of the NSHE budget request to the state and hence will not be part of the funding calculations. An agreement with the state that specifies a cap on the percentage of out-of-state students within any given institution may be wise under this model.

Secondly, the Board of Regents approved a policy that allows differential fees to support high cost or high demand programs to supplement what is currently generated by existing state support. These fees will be institution specific and include some set aside for financial aid to assist those students most impacted by the additional cost. All differential fees will be retained by the institution and will not be included within the state supported operating budget.

Third and longer term, in partnership with the legislature, NSHE propose that an examination of how our biennial budget request is built. Specifically, whether a budget model where the state agrees to fund a specific portion of the agreed-upon formula with the remaining portion supported with student fees is a better model. That portion of state and student responsibility will vary by institutional mission. For example, it is likely that the community colleges and perhaps the state college would receive greater state support in terms of an overall percentage of the institution’s budget versus the universities. A model such as this may be included in the final recommendations of the formula study currently underway, and would need to be endorsed by the legislature.
Rainy Day Fund. In the past three years, higher education has seen the negative impact of large decreases in state support for higher education. To assist if and when this happens in the future, NSHE recommends that the legislature create an NSHE Rainy Day Fund with a combination of state appropriations and unspent end-of-year funds within the NSHE state supported operating budget. Rather than have unspent dollars revert to the general fund, such funds would be invested through a Rainy Day Fund. The future use of these funds could occur only within carefully defined emergency circumstances established in partnership with the Nevada Legislature.

The Funding Formula. This is currently the foundation of higher education’s state budget request and defines NSHE institutional fiscal needs, based on a number of drivers that define cost, primarily the number of students. NSHE has asked for a review of this formula and hired MGT of America to conduct this review. This report will take into account many interviews and comparisons with other state formulas, will result in recommendations for change to the current formula. Out of this study, we hope we can gain recommendations that set aside or correct misgivings about the equity of the current formula and create new incentives for institutional behavior that reward outcomes rather than just inputs.

Goals. It is time for NSHE to set measurable goals and report the results to the citizens of Nevada. Such goals should be aligned with the broader strategic goals of the state and support the brighter future the Silver State needs.

More Graduates. Nevada must produce more entry-level graduates if the state is to become competitive and more economically prosperous. The State’s participation in Complete College America is evidence of the political will to accomplish this. The proposal before NSHE, in concert with private colleges and universities, will produce 1,064 more college completers each year through 2020, a total of 70,224 more graduates than our current practices would produce. College completers are defined as students who receive a workforce certificate of achievement, an associate’s degree, or a baccalaureate degree. Make no mistake about it – this goal will require significant changes in how NSHE institutions do business, some of which are discussed in this plan. Unless NSHE institutions are strongly committed to efforts that improve recruiting, retaining and graduating students, NSHE will not meet this aggressive goal. Likewise, the state’s partnership will be critical in assuring resources to enable students to receive the classes and support they need to graduate.
More External Funding - Research. NSHE needs the State of Nevada to partner with the three research institutions to establish a model to coordinate and fund research initiatives designed to bring high tech, high wage businesses to Nevada in sectors which are consistent with the state goals for economic diversification. Obvious targets for research technology transfer areas that should be the focus for Nevada include green technologies and renewable energy, water and natural resources, and biotechnology and health care. NSHE stands ready to do its part in this endeavor, but Nevada is overdue in establishing a clear commitment to the importance of research. One excellent model would be the State of Utah which established the Utah Science, Technology, and Research (USTAR) economic development initiative to bolster Utah’s research strengths and significantly increase technology commercialization to create many higher caliber jobs throughout the state. With strong commitment from the state, institutions can increase their external funding for research by 10 percent annually. This commitment by the state and the Nevada System of Higher Education can form the basis for a more vibrant, diversified and export economy.

More External Funding – Workforce Grants. The colleges, as well as the research institutions, will be enabled and encouraged to seek entrepreneurial ways of doing business. Increasing the amount of external grants and contracts received to support workforce development initiatives is critical. Proposed as a goal is an increase in the amount of those contracts and grants, by each college, of no less than 10 percent per year going forward. NSHE also asks that the state support these efforts through the establishment of incentive and matching funds for external grants and contracts. Additionally, there are likely savings and advantages in turning the receipt, processing and program operation of a number of Federal funds that currently flow to the State Department of Education or to the Department of Employment, Training, and Rehabilitation over to NSHE. One example to look at would be the Carl D. Perkins Vocational and Technical Education Grant funds.

Effectiveness and Efficiency. In both academic and in administrative areas, change will be required to improve operations by careful review and the establishment of best practices. Within NSHE, self-examination and use of data to make decisions are expected. This is not a budget-cutting strategy, but an excellence strategy. Any savings will be redirected to build quality.

Accelerated Degree Programs. Establish programs with financial incentives and academic support for cohorts of students to finish certificates and degrees quickly.
- **Credit Limitations on Degrees.** Set standards for degree requirements not to exceed 120 credits for a bachelor’s degree, 60 credits for an associate degree, and 30 credits for a certificate of achievement except under certain circumstances. Numerous examples exist across the country of such degree limitations. Texas has placed in statute that without a “compelling academic reason,” a degree may not exceed 120 credits (*Texas Education Code § 61.0515*). Among others, the university systems of Georgia, Maryland, Mississippi, Montana and Tennessee have all limited degree programs to 120 credits unless justification can be made for more. NSHE is confident that faculty will engage in examining all areas where quality student learning outcomes may be gained in fewer credits – which translates to less cost and time for students and more graduates for the state.

- **Low-Yield Programs.** Ensure that all academic programs have realistic parameters for a program’s continuation if low numbers of graduates (and few service courses) exist. This is particularly critical for high cost graduate programs at the universities. This critical examination is already happening at NSHE institutions, but it must become a regular and expected review, and policy changes to put more teeth into the review are needed.

- **Redesigned Courses.** Redesign remedial and general education courses and use new models for instruction where research indicates that greater student learning and success at less cost or less time are achieved through alternate methods (i.e. using technology to focus attention on the skills students need for college-level courses that are self-paced). NSHE colleges and universities have already begun this process and will continue aggressively going forward. As NSHE reviews the adequacy of our funding formula, these new methods should be encouraged and funded appropriately.

- **Incentives for Decreased Time to Degree.** Target use of tuition and fees to build incentives for students to complete college sooner, such as guaranteed fee levels up to a certain number of credits or penalties for students who drop or repeat classes.

- **Part-time Faculty.** With any increased use of adjunct or part-time faculty for instruction, put in place the appropriate quality assurance mechanisms, such as prescribed course content, mandated end-of-course assessments, in-class observations of adjunct/part-time faculty instruction, and student evaluations.

- **Articulation and Transfer.** In addition to the current work of the NSHE Articulation Board and Regents’ policy, institutions need to work bilaterally, as needed, to ensure that credits transfer under 2+2 and 3+1 agreements, that students consider carefully the advantages of
completing associate degrees prior to transfer, and that with these degrees, students are guaranteed admission at the junior or senior level, ready to move forward toward a baccalaureate degree. Community colleges will continuously monitor articulation agreements with NSHE institutions and other post-secondary institutions so students transfer efficiently to four-year institutions.

- **Reinvestment of Efficiency Efforts.** Develop a process whereby NSHE reports transparently how the savings from NSHE’s efficiency efforts are being used to create excellence within each institution. As NSHE changes its culture and practices to operate more effectively and efficiently, these dollars should be reallocated to areas where high need and the possibility of enhanced success exists. Included in these efficiency efforts will be a major initiative to examine all business functions, including, but not limited to purchasing, human resources and payroll, that may result in the consolidation of certain functions across the state. These efforts must be underscored by setting a target to decrease the percentage of total expenditures for Operating/Maintenance and Administration. Likewise, the examination of all common support services for quality and efficiency will occur. Included in this will be System Computing Services, libraries, and security/campus police services.

**Financial Aid.** Increasing financial assistance and scholarships for students is not just a matter of maintaining access for low income students and their families. The state can ill afford to keep growing the more expensive pathway of lifelong dependence on the state through social services and corrections, when, for a much lower cost, education provides a robust and positive outcome for both individuals and state budgets.

- **Focus on Student Access and Success.** Quality institutions provide quality opportunities for all students who are making education a priority and have the clear goal of obtaining degrees and certificates that will make them well-educated and workforce ready. This requires that NSHE focus its services and limited financial assistance on students whose needs are well defined and who are on a track to success. An ongoing project with the University of Southern California Center for Urban Education and WICHE will help identify the key places and students who can succeed if institutional behavior supports them. Changes in institutional practice and targeted financial aid will be a high priority.

- **Policy Strategies Related to Affordability.** Affordability is not just about tuition and fee costs; it is also about a student’s ability to pay relative to their income and financial aid. Efforts must be made to increase the percent of total disbursed financial aid that is need-based, and goals must be set to hold us accountable to accomplish this.
• **Focus on Taking Full Advantage of Federal Financial Aid Funds.** Currently, too many low income students, particularly at NSHE’s community colleges, do not apply for federal financial assistance, thus leaving on the table needed support for their college aspirations. Within NSHE’s efforts on college access and success, one focus must be encouraging these students and their families to apply for federal assistance and set goals to increase the participation rate among students from low-income families.

• **Low Income Students and Tuition and Fee Increases.** NSHE will explore a variety of strategies to hold low-income students harmless to cost increases for a maximum of four years at the universities and state college and two years at the community colleges to encourage full-time enrollment.

**Partnerships.** All NSHE institutions must look to the efficiencies and economies that can be gained by moving beyond the campus and traditional ways of doing business and seeking new partnerships.

• **State-NSHE Partnerships.** Where quality and cost savings can be achieved through reworking our agreements with the state, NSHE will aggressively pursue executive and legislative conversations to implement change. NSHE will seek flexibility with responsibility for wise decisions for Nevada. For example, the relationship must be evaluated to ensure that there is value added at every point in the chain of decisions by which we design, fund, manage, and build public works.

• **High School Students.** Early involvement with higher education by high school students is generally associated with a strong college-going culture. In partnership with our Nevada high schools, NSHE will focus on more dual enrollment courses, early testing, and fast track programs modeled on the current 2+1 technical education agreement with school districts. In addition, NSHE must examine every place where public and higher education interface to make sure that the maximum consistency and efficiency exists between the two. Areas for examination include not only dual programs and facilities use, but close coordination to engage business and minority communities, Nevada’s unacceptable dropout and remediation rates, and the sharing of data. Partnership with public education must stop being a catch phrase and become a way of doing business.

• **Business and nonprofit sector.** NSHE will pursue such partnerships at every level within institutions where appropriate to build student opportunity, internships and employment, synergies for quality
operations, and potential cost savings. Likewise, better pathways for technology transfer to assist business will be explored.

- **Facilities.** More intense use of existing buildings and classrooms will be required as the state’s ability to fund new construction is limited in the immediate future. Distance education strategies alone will not be sufficient. After institutions have reviewed again their maximum and optimal use of classrooms, as enrollment grows, partnerships with school districts, hospitals, libraries, and businesses to acquire classroom space will be encouraged. For example, the new state-of-art career and technical academies in Las Vegas might be available in late afternoons and evenings for our use.

**Accountability.** Whether to the citizens of Nevada, NSHE students and faculty, the Governor, or legislators, good information must flow that enables confidence to be built in the excellent job being done throughout NSHE.

- **Student Success.** The National Governor's Association (NSGA) proposed several completion metrics that will measure outcomes and progress for all states to use in the national effort to increase the number of Americans with a college degree or certificate. The outcome metrics include degrees and certificates awarded, graduation rates, transfer rates, and time and credits to degree. For progress metrics, the NGA suggests: enrollment in remedial education, success beyond remedial education, success in first-year courses, credit accumulation, retention rates, and course completion. These reliable metrics are designed for all state leaders to use to gauge whether policies are successful and to help inform funding decisions. NSHE must wholeheartedly join efforts like this, such as the Voluntary System of Accountability (VSA), an initiative by public 4-year universities to supply basic, comparable information through a common report – the College Portrait, and a similar effort for community colleges developed under the direction of the American Association of Community Colleges - Voluntary Framework for Accountability (VFA). Both UNLV and UNR currently participate in this VSA project.

- **Attention to Quality and Improvement.** Goals must be set for continuous monitoring of all business and service functions going forward. Such reporting and examination of the implications of good and reliable data must become a way of life for NSHE, building a culture that questions every operation about whether it is the best way to proceed. The iNtegrate project has allowed NSHE to begin that culture change in Student Services, and it will be the foundation for this change occurring in business and in personnel practices. Funding for these additional modules will be essential as NSHE move forward.
This Plan will give institutions a margin of excellence and added flexibility in these difficult fiscal times. Both the State of Nevada and NSHE will receive significant value-added benefits. For the state, public higher education grows as a critical asset, invaluable to every citizen and inextricably woven into the fabric of each community. When a question or policy issue arises, people will turn first to NSHE institutions and have confidence that assistance is both available and excellent. Every faculty member and administrator will view themselves as servants for the broader good of Nevada – the true meaning of our “service” mission. Likewise for students, Nevada’s public colleges and universities will offer excellent and clearly defined educational pathways with state-of-art instruction and support. Students deserve to have full confidence in the value of any degree or certificate from our colleges or universities.

Finally, and importantly, for the taxpayers of Nevada, NSHE commits to a method of doing business that pledges value received for support given, with appropriate accountability and transparency. This Plan moves higher education in Nevada forward in difficult times to make the critical decisions necessary to ensure such success.
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. Although this will be difficult given the current budgetary situation, the university will continue its attempts to attract greater research funding through grants.

Additionally, the university will make efforts to increase the diversity of its student body while also increasing graduation and retention rates. UNLV has been planning for general education reform over the past two years and seeks to have a new outcomes-based curriculum implemented in Fall 2012 that will provide a value added education to our students.

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

As a result of comprehensive campus-wide planning, an inventory of possible new programs of study is included below. Clearly current budgetary and fiscal issues make the development of new programs difficult, if not impossible, except in the most extraordinary circumstances. That does not, however, negate the need for such programs. Thus, it is important to at least note the need and possibility 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. As a result of these various steps and processes and the current budget reality, all of these programs are highly tentative. Much of the information in the following table suggests a number of unknowns. That is due to the fact that all discussion of new programs at UNLV has stopped at all but the department levels. Should the budgetary climate brighten or should one of these programs be determined absolutely essential, such discussions will begin anew and details will be forthcoming.

<table>
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<tr>
<th>New Program Name</th>
<th>Brief Description</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Dollars</th>
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<tr>
<td>PhD in Early Childhood Education</td>
<td>Provide advanced degree for those in ECE and Special Education</td>
<td>TBD</td>
<td>Unknown at this time</td>
<td>Grants</td>
</tr>
</tbody>
</table>
### New Program Name | Brief Description | Date of Implementation | Estimated Cost | Funding Sources Outside of State Dollars
--- | --- | --- | --- | ---
PhD in Business Administration | Advanced study in business administration | TBD | Unknown at this time | Possible private donations
MS in Professional Science | Provide education for non-academic science industry positions | TBD | Unknown at this time | Possible private donors
PhD in Addiction Counseling | Counselor Education, Nursing, Social Work, and Public Health to address local and national needs | TBD | Unknown at this time | Unknown at this time
PhD in Counselor Education | Address needs for counselors | TBD | Unknown at this time | Unknown at this time

### Student Services

**Enrollment and Student Services:** iNtegrate – The Student Services Module (SSM) of PeopleSoft and the institutional portal have gone live on time and within budget over the past several months. The next phases of the implementation process will include a refinement of the functionality of this system to more fully meet the needs of the campus community. This new information system will transform how and when students communicate with the colleges and universities of the Nevada System of Higher Education and how faculty and staff conduct the necessary business of meeting students’ needs for accurate information, timely decisions, and informed choices that lead to student success. Student service functions, including course registration, payment of fees, and financial aid, are now more student-friendly and better serve students by streamlining process and eliminating duplicate efforts. As other NSHE campuses implement the system, there will be a seamless transfer of student information across the NSHE, and improved communication between faculty, staff, and students. UNLV is a pilot campus for the iNtegrate project.

The ESS implementation team will also focus attention on developing methods of capturing and mining institutional data to inform the work of the offices of Admissions, the Registrar, and Financial Aid in order to support student achievement, persistence, and success. This will be accomplished through the development of dashboard reporting and by providing the expertise and programming for the development of the campus data warehouse. The information provided by this new reporting capability will inform the development of new student scholarships, retention interventions as well as institutional supports for more timely student graduation. In addition, there is currently underway an assessment of the functions of the Student Affairs Technology team and the resources appropriated to this group. The work of this department will be coordinated to support the functions of the new information system as well as to maintain existing systems and third party applications in student affairs.

The Office of Orientation and Parent Programs has recently been placed under the leadership of the Executive Director of Admissions. This program continues to be refined to provide a timely
and effective introduction to the university experience to newly enrolling undergraduate students. This program development includes the participation of the Academic Success Center, college advisors, faculty, ESS departments, and other collaborators and partners across campus. It is expected that this new programming will provide students with the information and skills they need to have a successful undergraduate experience at UNLV.

There are also new efforts underway to evaluate the marketing and communications efforts in ESS with an intent to better communicate the UNLV brand and institutional messages to prospective student groups and families. A more concerted effort will be made to attract undergraduate students from high ability, out-of-state, and international communities as well as better serve prospective Nevada students.

An active review is also underway regarding Career Services. The program will be evaluated for current service levels and new methods of providing student support on line via the new university portal.

**Campus Life:** Starting in 2011, Housing and Residential Life in conjunction with the Academic Success Center will create a freshmen center in the Dayton Complex focusing on intensive advisement, identification of at-risk residents and implementation of academic coaching.

The Offices of Student Involvement and Activities (SIA) and Student Diversity Programs and Services (SDPS) were merged in 2010 to create the Office of Civic Engagement and Diversity. This office 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 office placed Engelstad Scholars in community agencies and meets bi-weekly with each scholar to reflect on their experience.

The Office of Campus Life Assessment was formed to coordinate the writing of strategic plans, annual reports and the Campus Life Report Card. This office also administers the National Survey of Student Engagement (NSSE) and the Student Satisfaction Inventory (SSI) and reports the results to the institution. Through the NASPA Consortium, Housing & Residential Life, Fraternity & Sorority Life, and Civic Engagement will be assessed in 2011.

The Civic Engagement Team comprised of Campus Life staff and faculty members are creating several initiatives to bridge the curricular and co-curricular. Festival of Communities: UNLV Open House is an event that will showcase the institution via cultural events, academic research and fine arts presentations, and community service. This team will create and facilitate a series of workshops on service learning for faculty and community partners to understand and incorporate this high impact practice into the curriculum.

**Student Wellness:** Student Wellness, an integrated health, counseling, wellness, and student conduct unit, will increase its contribution to the academic mission of the UNLV through a number of initiatives. These initiatives include:

- A $300,000 grant from the Office of Violence Against Women from the Department of Justice allowed Student Wellness to establish a mandatory prevention and education program about domestic violence, dating violence, sexual assault, and stalking for all incoming students. We also work to strengthen programs that support the overall mission to reduce crimes against women on campus such as bystander programs, peer education models, men’s education courses, athletic and fraternity training initiatives and social norming campaigns.

- We are a partner with New York University in a research project that aims to improve the identification and treatment of students with depression at UNLV. The project involves screening over 20,000 students who come into the health and counseling centers each
year. This continuous quality improvement effort should improve the overall health and academic success of students with depression.

- The Student of Concern Report is a part of a comprehensive reporting system that is an important element in fostering a safe and supportive campus community. It facilitates faculty and staff to share appropriate information about students for which they are concerned. This process allows Student Affairs professionals to break down information silos and to see the big picture for students who may be reaching out for help and/or acting inappropriately in a variety of departments on campus. This information is used to provide timely and caring interventions to the student while preserving safety on campus.

**Student Affairs Development:** The Office of Development in the Division of Student Affairs seeks to promote and secure funding for the mission of the Division of Student Affairs. It will focus on gifts that will pay for or offset operational costs for the Division. An emphasis will be placed on securing gifts or services that will help recruit and retain talented students to UNLV. In doing so it will work with the Student Affairs Advisory Board, which is a committee made up of UNLV Alumni and community leaders. The purpose of the board is to advise the Division of Student Affairs’ leadership, promote the division to the community, and help secure external funding for Student Affairs. It meets regularly each year and members participate in many of the activities of the Division of Student Affairs.

**The Center for Academic Enrichment and Outreach:** The Center will continue to provide at-risk and traditionally underrepresented individuals with critically needed student services and support that improve retention and graduation rates for both secondary and postsecondary students. CAEO will increase the number of UNLV students served under the Student Support Services projects through two additional grants funded for the next five years effective September 1, 2010. Eligible participants, who are low-income and first-generation college students, will benefit from 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 federal 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.

**Blackboard:** An upgrade of the Blackboard operating system from Unix to Windows is anticipated for 2011.

**Research Initiatives**

As a comprehensive public university, UNLV supports research endeavors in all of its academic programs. However, the university community seeks particularly to create research excellence in areas of importance to the Las Vegas metropolitan area and to 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,

- Improve research services to faculty and reestablish services that have been cut

- Increase research expenditures & technology transfer,
• Bring to success major pending initiatives (Solar Solutions Center, International Hydro Research and Technology Park, etc.),
• Support research that informs teaching and learning outcomes,
• Promote the mutually beneficial nature of graduate education and research,
• Contribute to economic diversification of the community, state, and region, and
• 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 the Intermountain West region. This includes research on water resources, renewable energy development, transportation, and architectural innovation in desert environments, to name a few. UNLV also conducts research on social, cultural, and economic issues associated with the populations and industries unique to city of Las Vegas, including such issues as risk behavior, economic sustainability, public health, immigration, and social justice, among others.

In the 2011-2014 planning period, UNLV is focusing its efforts on transformational, team-driven research that addresses community, statewide and regional issues such as water resources, public health, urban growth, social well-being, transportation, and renewable energy. These are topics of critical importance and relevance to other rapidly urbanizing communities in the U.S. and other parts of the world, as well.

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

1. Renewable energy
2. Western climate change
3. Arid lands hydrology & water resources
4. Public health & translational research
5. Nanotechnology
6. Materials science
7. Radiochemistry
8. High pressure physics & chemistry
9. Transportation engineering
10. Integrative physiology
11. Biosafety & medical microbiology
12. Astrophysics
13. Environmental policy
14. Arid lands biodiversity & ecology
15. Nuclear forensics
16. Nuclear engineering
17. Radiopharmaceuticals
18. Accelerator center

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 four areas with the greatest potential for commercialization: Radiochemistry, Nanotechnology, Electrical Engineering, and Security Technology.

In the area of renewable energy, UNLV and a number of committed community partners are developing a Solar Solutions Center, which will establish the university as a national center for excellence and a one-stop-shop for solar energy deployment. The center is designed to employ research, policy analysis, and business outreach to support solar energy industry jobs, improve technology, develop pro-solar policies, and coordinate financial and intellectual resources. It will also prepare the future leaders needed to sustain a renewable energy economy. The center will have three clusters: Research and Development, Policy and Analysis, and Business Services.

The university is also exploring with statewide 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 Nevada Cancer Institute, Desert Research Institute, the Cleveland Clinic, and the Nevada Commission on Economic Development.

Perhaps the most important issue in the world over the next 10 years is water. Over the 2011-2014 planning period, UNLV, Desert Research Institute, Las Vegas Valley Water District, local developer Michael Saltman, David Scherer from Grubb and Ellis, and possibly UNR are teaming 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. The campus will attract major national and international companies, groom local firms to be world-class players, and proliferate start-ups in the hydro industry. Some of the results will be the development of new products and technologies, an international forum for marketing hydro-related products, local job creation, and research opportunities for faculty at NSHE institutions.

In the area of environmental science, the university restructured and revitalized the Harry Reid Center for Environmental Studies. Under new leadership, the center will continue to pursue a larger vision for environmental research, such as land-use dynamics, renewable energies, and water availability and quality. Greater emphasis has been placed on reorganizing the divisions within the HRC and increasing the center’s competitive grant funding through new research areas, better marketing, industrial support, and increased integration with UNLV academic colleges.

The mission of the Harry Reid Center for Environmental Studies is to understand and seek solutions to environmental problems, protect cultural and natural resources, advance development in the areas of sustainable and clean energy, materials research, and improve transportation systems while supporting the academic research backbone of UNLV. The HRC can best meet its mission by fostering and supporting collaborative research programs, developing and maintaining state-of-the-art facilities for research, and facilitating the development and implementation of multi-disciplinary research programs. Through its scientific collections and the Marjorie Barrick Museum, the HRC also promotes an understanding and appreciation of cultural and natural diversity, past and present.

Over the 2011-2014 planning period, the HRC plans to collaborate with the Nevada National Security Site (formerly the Nevada Test Site) on projects related to nuclear proliferation. The HRC will also be involved in the implementation of the Solar Demonstration Site project recently announced by the U.S. Department of Energy, which will be located at the Nevada National Security Site.

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. 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, which coordinates campus-wide activities of this initiative and works with UNLV, UNR and DRI in statewide research activities.

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.
UNIVERSITY OF NEVADA, RENO

Strategic Objectives

During 2011-2014 the University of Nevada, Reno will raise its reputation for quality instructional, research, outreach, and service programs for the benefit of the community, state, region, and nation.

The strategic objectives established at the University of Nevada, Reno include the following:

1. Increase undergraduate enrollment to 14,500 (13,327 in fall 2009) and graduate enrollment to 3,800 (3,525 in fall 2009) through recruiting and retention strategies, building a culture of completion and four-year graduation:
   - Build recognition among high school students that higher education is fundamental to enhanced quality of life,
   - Unify the approaches of academic units, student services units, the graduate school and international student service offices in recruitment efforts,
   - Customize recruitment efforts for the optimal benefit of signature programs,
   - Raise first year persistence to 85 percent (80 percent in fall 2009) and second year retention to 90 percent (83 percent in fall 2009),
   - Raise the freshman, 6-year graduation rate to 60 percent (47 percent for the fall 2003 cohort) and lower the average time to graduation to 4.5 years (4.8 years for the fall 2003 cohort),
   - Achieve the ethnic composition of the student body and the composition of the graduating class to that of Nevada’s high school graduate population,
   - Apply consistent and high quality academic faculty advising/mentoring for all students to enhance the student educational experience,
   - Increase the number of National Merit finalists enrolled to 70 (28 in fall 2009) and increase the size of the honors program,
   - Encourage and coach qualified students to compete for Rhodes, Fulbright, Truman, Goldwater and other post-graduate opportunities,
   - Increase the proportion of student credit hours taught by ranked faculty to 65 percent (60 percent in fall 2009) for lower division classes and 85 percent (81 percent for fall 2009) for upper division undergraduate classes,
   - Create programs to encourage and support a college education for first generation, low income students, and for degree completion for students who left college before completing their degree,
   - Broaden the ethnic and gender diversity of faculty and staff,
   - Establish comprehensive faculty mentoring programs for faculty under the rank of professor, and
Establish an opportunity hire policy to create an opportunity to hire faculty members with support, which will advance key university objectives, e.g., ethnic diversity of faculty or novel teaching and research initiatives.

2. Increase contributions to research knowledge:
   - Build the tenured and tenure-track faculty in signature research programs in the natural, social and medical sciences, and in programs of scholarly excellence in engineering and the arts and humanities, and
   - Raise the level of annual sponsored research expenditures to $85 million ($68 million in FY10) and all annual sponsored expenditures to $125 million ($110 million in FY10).

3. Make progress in the area of information technology:
   - Provide greater support for state-of-the-art technology needed for teaching and research and build on the asset of the Mathewson-IGT Knowledge Center,
   - Consolidate information technology of all units under the single umbrella of the Vice President for Information Technology,
   - Adopt the use of electronic health records in the School of Medicine, and
   - Increase the use of on-line educational experiences for on-campus and off-campus students.

4. Improve marketing and communication of the university:
   - Enhance the University’s Web presence with attractive and easy-to-use Web tools, emphasizing communication with prospective undergraduate students,
   - Create new, more timely and interactive electronic communications channels for faculty, students, staff, alumni, and external audiences, and
   - Create a focused, streamlined media relations program targeted at reaching important regional, national, and international media outlets to advance the University’s awareness and reputation in specific, strategic areas.

5. Inspire greater fund raising for the benefit of faculty, students, and facilities:
   - Renovate the Getchell building into a student academic success center with access to a writing center, math center, tutoring center, counseling center, on-line testing center, self-paced instructional center, career center, and other student support services,
   - Increase endowments for student tuition and experience scholarships, professorships, graduate fellowships, and faculty and student support, and
   - Increase the percentage of alumni who are annual donors.

6. Create the infrastructure needed for both the Reno and Las Vegas campuses of the University of Nevada School of Medicine (UNSOM):

18
Complete owned and renovated medical facilities in Las Vegas,

Complete new facilities in Reno that will be shared by the School of Medicine and the Whittemore-Peterson Institute,

Complete new medical teaching facilities in Reno to permit an increase in medical and nursing school class size, and

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 the Silver State.

7. Implement the master plan for campus restoration, beautification, and expansion:

- Begin a development plan to connect the south side of campus with the Reno community, and
- Continue planning new teaching and research facilities and renovation of existing facilities.

**Academic Programs**

The following programs were described in department and college strategic plans for the years 2011-2014 and beyond. Planning for these programs is at varying levels within the departments. Depending on the planning stage for these programs, the date of implementation, estimated cost and funding sources may be unknown.

<table>
<thead>
<tr>
<th>New Program Name/Expansion of Existing Program</th>
<th>Brief Description</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Master of Finance</td>
<td>The program will provide executive level training in finance to students with extensive professional background.</td>
<td>Fall 2012</td>
<td>$200,000</td>
<td>Differential program fee</td>
</tr>
<tr>
<td>Distance Executive MBA</td>
<td>A self-supporting, online cohort program allowing mid-career executives and experienced professionals to earn a graduate-level management degree that they cannot pursue otherwise due to their work and personal obligations.</td>
<td>Fall 2011</td>
<td>$180,000</td>
<td>Tuition/self-supporting</td>
</tr>
<tr>
<td>BA in Dance</td>
<td>Program preparing students for dance careers in the areas of performance, choreography, production and advanced study/ scholarly work in dance</td>
<td>Unknown</td>
<td>$274,812</td>
<td>Existing faculty supporting current minor in dance-</td>
</tr>
<tr>
<td>New Program Name/Expansion of Existing Program</td>
<td>Brief Description</td>
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<tr>
<td>-----------------------------------------------</td>
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</tr>
<tr>
<td>Undergraduate interdisciplinary major in Physical Education School of Community Health Sciences/College of Education</td>
<td>36 credit major preparing students to train as a physical education specialist to work in both the public and private sectors</td>
<td>Fall 2012</td>
<td>$130,000/year</td>
<td>Possible federal funds and self-support extended studies model.</td>
</tr>
<tr>
<td>BS in Agricultural Science (w/ Emphasis in Business)</td>
<td>Part of the reorganization of the college. Program will provide students with a background in animal and plant science and in business.</td>
<td>Fall 2011</td>
<td>Unknown</td>
<td>No new resources—forming degree from remaining faculty after reorganization of CABNR</td>
</tr>
<tr>
<td>BS in Rangeland Ecology and Management</td>
<td>Part of the reorganization of the college. Program will allow students to learn best practices of cattle management on rangeland while maintaining range ecology.</td>
<td>Fall 2011</td>
<td>Unknown</td>
<td>No new resources—forming degree from remaining faculty after reorganization of CABNR</td>
</tr>
<tr>
<td>MS in Integrated Marketing Communications</td>
<td>A hybrid program for working professionals that prepares them to manage a global integrated marketing communications program.</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Tuition/self-support extended studies model</td>
</tr>
<tr>
<td>BS in Metallurgical Engineering</td>
<td>A program designed to educate metallurgical engineers for the metals and mining industry</td>
<td>Fall 2011</td>
<td>$132,800 from existing resources</td>
<td>Financial support from mining industry</td>
</tr>
</tbody>
</table>

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, it is then brought to the NSHE Academic Affairs Council and the Board of Regents’ Academic, Research 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 new programs; however, it is expected that all programs listed will be brought for consideration during the planning horizon of 2011-2014. 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 student services UNR plans to implement in the period 2011-2014:

<table>
<thead>
<tr>
<th>New Program Name/Expansion of Existing Program</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct a new building as a true living/learning community</td>
<td>Summer 2012</td>
<td>$35,000,000 total ($3m academic component; $32m auxiliary)</td>
<td>Mostly auxiliary. Funding for academic portion unknown.</td>
</tr>
<tr>
<td>Implement MAPworks, retention tool used to identify at-risk new freshmen</td>
<td>Fall 2010</td>
<td>$29,000</td>
<td>Funded through the orientation fee</td>
</tr>
<tr>
<td>Expand and revise summer orientation</td>
<td>Summer 2012</td>
<td>$70,000</td>
<td>Student fees</td>
</tr>
<tr>
<td>Guarded by the Pack (sexual assault prevention program)</td>
<td>Fall 2011</td>
<td>$36,600</td>
<td>Regents Service Program and counseling fee</td>
</tr>
<tr>
<td>Implement Advanced Registration for new freshmen</td>
<td>Fall 2011</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Free tutoring reinstated for all students. Enables small group, walk-in and supplemental instruction.</td>
<td>Fall 2010</td>
<td>$365,500</td>
<td>Academic Success Fee</td>
</tr>
</tbody>
</table>

**Research Initiatives**

The most significant research goal for 2011-14 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, and

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 of graduate assistantships to maintain national competitiveness,
- Increase start-up support for both tenure track hires and invest in prime research faculty hires,
- Invest in renovation of research facilities to address newer technologies and equipment needed for cutting edge research, and
- Maintain strong support for key core research facilities.

**Incentivizing research:**

- Identify areas for opportunity/high profile hires in key areas of research excellence, e.g. Great Basin foci and arid land resource foci,
- Reinstate seed grant program focused on areas of high potential for research excellence, and
- Provide on a competitive basis additional research graduate assistants.
NEVADA STATE COLLEGE

Strategic Objectives

Nevada State College was established in 2002 as Nevada’s first mid-tier institution in the Nevada System of Higher Education. As the only comprehensive state college in Nevada, 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. Nevada State College places special emphasis on meeting the state’s need for highly-skilled, well-educated teachers and nurses and offers a wide range of baccalaureate degree programs grounded in the liberal arts and sciences.

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 2011-2012 are the following strategic objectives:

1. 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.

2. 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.

3. Improve curricula through a more rigorous and comprehensive college-wide assessment of student learning.

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

5. Improve information literacy and technology proficiency in students and staff.

6. Establish strong 2+2 programs and articulation agreements with incentives for students who have earned an associate’s degree.

7. Increase post-baccalaureate programs leading to certificates and endorsements.

8. Expand extramural funding needed to support the success of first-generation and under-represented students (e.g., TRIO).

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1 Given the uncertain economic climate, the college chose to pursue a shorter, more controllable two-year strategic plan over a four-year plan at this time.
9. Develop appropriate support mechanisms needed to establish Nevada State College as a Hispanic/minority-serving institution.

10. Meet student needs and promote retention through data-driven improvements to curricula, student support services, and instruction.

11. Increase private funding and donor contributions.

12. Improve student financial and scholarship services.

13. Achieve and retain appropriate independent regional and specialized professional accreditations in the disciplines and schools.

14. Partner with biotechnology firms to create certification programs that enhance the skills and workforce viability of our science graduates.

15. Revamp remedial curriculum to facilitate student skill-acquisition while simultaneously decreasing costs and time to completion.

16. Create and strengthen partnerships that provide a synergistic and interdependent relationship with the southern Nevada community.

**Academic Programs**

Nevada State College will continue to work toward meeting its strategic objectives as listed below (the objectives are not prioritized). However, after many meetings and discussions regarding the current budget situation facing the campus, it was decided to withhold requests to implement new academic degree programs. The following programs will be included in Nevada State College’s Institutional Strategic Plan, but require start up resources that the college simply does not have at this time.

- Bachelor of Science in Early Childhood
- Bachelor of Science in Mathematics
- School of Business

**Student Services**

During the next two years (2011-2012), Nevada State College will expand upon the following student service initiatives:

<table>
<thead>
<tr>
<th>Brief Description of Expanding Student Services</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand the newly-formed Student Academic Success Center to include more comprehensive tutoring services and longer hours of operation</td>
<td>2011</td>
<td>$150,000</td>
<td>Student Fees</td>
</tr>
<tr>
<td>Brief Description of Expanding Student Services</td>
<td>Date of Implementation</td>
<td>Estimated Cost</td>
<td>Funding Sources Outside of State Dollars</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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<td>------------------------------------------</td>
</tr>
<tr>
<td>Improve generalized academic support services through a coordinated effort – involving advising, tutoring, and financial aid – that assists at-risk students</td>
<td>2011</td>
<td>$100,000</td>
<td>Student Fees</td>
</tr>
<tr>
<td>Enhance student financial and scholarship services by improving the provision of aid and by increasing student awareness of financial support options</td>
<td>2011</td>
<td>$65,000</td>
<td>Student Fees</td>
</tr>
<tr>
<td>Develop and implement programs and services (e.g., mentoring programs) that increase student engagement with faculty, staff, and other students</td>
<td>2012</td>
<td>$15,000</td>
<td>None</td>
</tr>
<tr>
<td>Establish centralized system for providing fast, efficient responses to the technical support needs and requests of students</td>
<td>2011</td>
<td>$15,000</td>
<td>None</td>
</tr>
<tr>
<td>Improve the capability of the Centralized Academic Advising Center (CAAC) to guide students who have earned less than 60 hours of college credit</td>
<td>2012</td>
<td>$65,000</td>
<td>None</td>
</tr>
<tr>
<td>Secure TRIO funding to increase the number of low-income, first-generation students who successfully pursue a baccalaureate degree</td>
<td>2011</td>
<td>$250,000 per year</td>
<td>Federal grant funding</td>
</tr>
</tbody>
</table>
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 2011-2014 in Academic Affairs include the following:

➢ Improve the quality and innovation of CSN
  o Obtain/maintain external program accreditation where possible
  o Implement strategies to evaluate and improve the academic program review model and process
  o Implement strategies to ensure that academic program quality is commensurate with national standards
  o Implement strategies to collaborate more effectively with local entities to ensure academic programs are innovative and responsive to the changing needs of local business and industry

➢ Improve the quality of facilities and equipment
  o Implement strategies to ensure that facilities and equipment are meeting or exceeding appropriate standards

➢ Improve the quality of instruction
  o Implement strategies to enhance faculty professional development opportunities that encourage quality teaching
  o Encourage faculty access to, and utilization of, student success and satisfaction data
  o Expand and enhance the College’s efforts to recognize faculty accomplishments in the area of teaching
  o Encourage Faculty Senate to 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
  o Design and implement a comprehensive institutional effectiveness data management and reporting model
  o Expand the college-wide outcomes assessment program
  o Implement strategies to strengthen the organizational culture for
    ▪ Meaningful program reviews
    ▪ Policy development, revision, and communication
    ▪ Transparent resources management and institutional assessment
  o Implement strategies to build a culture of accountability and evidence

➢ Attain the desired ratio of full-time to part-time faculty
  o Implement strategies to 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
  o Implement strategies to ensure new hires meet or exceed CSN quality standards
➤ Improve the faculty, administration, and staff evaluation process
  o Implement strategies to monitor compliance with faculty, administration, and staff evaluation policies

➤ Enhance the part-time faculty support system
  o Implement strategies to
    ▪ Identify part-time faculty professional development needs
    ▪ Improve lines of communication to and from part-time faculty
    ▪ Enhance part-time faculty's access to facilities and support services

➤ Offer classes on days and times most desired by students while maximizing classroom utilization
  o Implement strategies to optimize classroom utilization using People-Soft or other space-utilization systems
  o Design schedule that is desirable to students to encourage students to enroll at maximum levels

➤ Provide a variety of courses and programs online
  o Increase the number of courses and programs offered online
  o Increase the variety of courses and programs offered online

➤ Provide classes in a wide variety of locations
  o Operate a CSN campus in each quadrant of Las Vegas as resources and student demand allow
  o Operate an access site in each community in CSN's service region, as resources and student demand allow

➤ Offer classes in a sequence that would allow timely completion of goals
  o 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
  o Implement strategies to encourage departments to offer and schedule courses in a sequence that facilitate timely completion
  o Implement strategies to encourage students to complete degrees in three years from declaration of major
  o Implement strategies to encourage students to complete certificates in two years from declaration of major

➤ Manage enrollments for improved alignment of student demand and resources
  o Encourage academic departments to plan to offer and schedule courses at budgeted enrollment levels
  o Implement strategies to evaluate student demand and enrollment patterns

➤ Improve overall educational outreach and community relations
  o 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 2011-2014 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
  - Implement strategies to encourage students to complete certificates in two years from declaration of major

- 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

- 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 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

- 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**

The following programs are currently envisioned for potential development in the next four years (2011-2014):

<table>
<thead>
<tr>
<th>New Programs Name/Expansion of Existing Programs</th>
<th>Brief Description</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dance, AA</td>
<td>This program will provide students with a sound academic and aesthetic preparation for completion of a bachelor’s degree</td>
<td>Fall 2011</td>
<td>$0 – Faculty, space, and dance studios already in place on Cheyenne Campus</td>
<td>Student Fees, State supported budgets</td>
</tr>
<tr>
<td>New Programs Name/Expansion of Existing Programs</td>
<td>Brief Description</td>
<td>Date of Implementation</td>
<td>Estimated Cost</td>
<td>Funding Sources Outside of State Funds</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
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</tr>
<tr>
<td>Clinical Laboratory Sciences, BAS</td>
<td>This program will provide an advanced degree option for students and current Medical Laboratory Technicians (MLT) interested in furthering their education in Clinical Laboratory Sciences. The coursework will provide additional, higher level instruction in all clinical laboratory disciplines, Laboratory Operations, and Research methods, as well as associated clinical practicum experiences.</td>
<td>Fall 2012</td>
<td>$258,000 – resources reallocated from salary savings; capital improvement funds</td>
<td>Students Fees, State supported budget to maintain program</td>
</tr>
<tr>
<td>Cardiorespiratory Science, BAS</td>
<td>This program will provide an addition to the Cardiorespiratory Sciences AAS degree. This expansion will give graduates the opportunity to become managers, educators, and cardiac specialists</td>
<td>Fall 2012</td>
<td>$87,500</td>
<td>Donor funding for capital project and program expansion study. Student fees, State supported budget to maintain program</td>
</tr>
<tr>
<td>Interpreter Preparation Program (IPP), AAS</td>
<td>This program will allow us to offer a niche program of excellence and distinction in Interpreter Preparation. Students will be able to pursue national certification to be in compliance with degree mandates from the Registry of interpreters for the Deaf and also meet criteria for qualifications set forth in Nevada state law</td>
<td>Fall 2012</td>
<td>Trained and qualified faculty are already on staff (full &amp; part-time). Lab equipment &amp; software were purchased by previous grants</td>
<td>Federal Grants will be pursued</td>
</tr>
<tr>
<td>Applied Communication, Certificate of Achievement</td>
<td>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</td>
<td>Fall 2011</td>
<td>No additional funding</td>
<td>Current equipment and facilities are sufficient to establish the program</td>
</tr>
<tr>
<td>Facility Operations Technology, AAS</td>
<td>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</td>
<td>Fall 2011</td>
<td>Interdisciplinary approach to existing courses with existing faculty and equipment. Only expenditure would be for ancillary library materials</td>
<td>Current equipment is sufficient to begin the program. Additional equipment gifts will be solicited from distributors and manufacturers</td>
</tr>
<tr>
<td>New Programs</td>
<td>Brief Description</td>
<td>Date of Implementation</td>
<td>Estimated Cost</td>
<td>Funding Sources Outside of State Funds</td>
</tr>
<tr>
<td>--------------------</td>
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</tr>
<tr>
<td>Digital Media Production, AAS</td>
<td>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</td>
<td>Fall 2011</td>
<td>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</td>
<td>Current equipment and facilities are sufficient to establish the program</td>
</tr>
<tr>
<td>Criminal Forensic, AAS</td>
<td>This program will provide students with the skills needed to conduct forensic crime scene investigations</td>
<td>Fall 2011</td>
<td>$85,535</td>
<td>Perkins grant funded program for start-up equipment &amp; supplies</td>
</tr>
<tr>
<td>Sustainable Construction, AAS</td>
<td>This program will prepare students to inspect and oversee construction of sustainable (green) buildings</td>
<td>Fall 2011</td>
<td>$235,000</td>
<td>State Operating Funds</td>
</tr>
<tr>
<td>Archaeology, AA</td>
<td>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</td>
<td>Fall 2011 – Spring 2012</td>
<td>@ $3000 for equipment for field work – 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</td>
<td>Student fees, State supported budget, grants will be sought from outside agencies if possible</td>
</tr>
</tbody>
</table>
**Student Services**

The following new student services are potentially planned for the next four years (2011-2014):

<table>
<thead>
<tr>
<th>New Programs Name/Expansion of Existing Programs</th>
<th>Brief Description</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Increase Student Access / Financial Aid</td>
<td>Reorganize and reassign key staff</td>
<td>2011/2014</td>
<td>No additional costs at this time</td>
<td>Current funding sources to be utilized</td>
</tr>
<tr>
<td>Increase Retention Efforts</td>
<td>In order to better support current students, staff and some fiscal resources will be utilized</td>
<td>2012</td>
<td>No additional costs at this time</td>
<td>Current funding sources to be utilized</td>
</tr>
<tr>
<td>Expand Counseling and Student's First</td>
<td>Provide initial guidance and counseling along with testing and placement</td>
<td>2012</td>
<td>$32,000</td>
<td>Redirection of division funds</td>
</tr>
<tr>
<td>Transfer Center / Four-year school Liaison</td>
<td>Transfer Center Coordinator will act as a liaison to UNLV to minimize any transfer difficulties. Monitor pre/post transfer performance</td>
<td>2012</td>
<td>$12,000</td>
<td>UNLV / CSN Counseling Department</td>
</tr>
<tr>
<td>Clinical and Psychological Services</td>
<td>Provide direct services to the Henderson Campus along with other centers. Develop internship program on all three campuses</td>
<td>2012</td>
<td>$58,000-$89,000</td>
<td>State funds / Fee for services</td>
</tr>
<tr>
<td>Disability Resource Center</td>
<td>Coordinator to evaluate and support accommodations on the Charleston campus due to the increase in need</td>
<td>2012</td>
<td>$55,000</td>
<td>State funds</td>
</tr>
<tr>
<td>Student Affairs Online</td>
<td>To provide online services to the increasing number of students completing courses and degrees online</td>
<td>2012</td>
<td>Costs have not been determined</td>
<td>State funds</td>
</tr>
<tr>
<td>ERP / Integrate</td>
<td>In order to complete transition to the new Integrate, staffing will need to be enhanced and backfilled</td>
<td>2011</td>
<td>Costs have not been determined</td>
<td>State funds / Foundation grants</td>
</tr>
<tr>
<td>Non-traditional Students</td>
<td>To identify students who have optioned out of college prior to completion</td>
<td>2012</td>
<td>Costs have not been determined</td>
<td>Grants</td>
</tr>
<tr>
<td>Hispanic Serving Institution (HSI)</td>
<td>Provide the appropriate infrastructure and support for the increasing number of Hispanic and or limited English speaking students</td>
<td>2012</td>
<td>Up to $100,000 per year</td>
<td>Grants</td>
</tr>
<tr>
<td>CSN Alert System</td>
<td>Develop a contact system to be used in the case of an emergency on or around our campuses</td>
<td>2012</td>
<td>$25,000</td>
<td>Grants</td>
</tr>
<tr>
<td>Sports Center - Cheyenne Campus</td>
<td>Increase fitness equipment and programs to promote student involvement. This will increase the sense of community and connection for our students</td>
<td>2012</td>
<td>$50,000</td>
<td>Student Fees</td>
</tr>
</tbody>
</table>
GREAT BASIN COLLEGE

Strategic Objectives

Creating Great Basin College’s Academic Affairs and Student Services strategic program objectives for 2011-2014 is challenging due to the uncertain future of funding in Nevada. 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.

In the academic area, previous plans for expanding Bachelor’s degrees, primarily for BAS opportunities, are not now listed for the next five years. The primary focus now will be on strengthening and maintaining existing programs, providing workforce development and community service offerings, and possibly adding Certificates and an Associate degree related to alternative energy. Within student services, the programs targeted for planning include student retention, student housing, student access, and student life. Planning new and expanded programs for Nye County remains a priority.

GBC completed a new seven-year Strategic Plan in 2009, which was approved by the NSHE Board of Regents. The items listed in the plan are below are components of the larger institutional Strategic Plan.

Academic Programs

The academic programs listed below are derived from ongoing strategic planning. The listed times and costs are projected with the goal of smooth step-wise implementation of programs accounting for the growth in student enrollment and budgetary constraints. Any new programs will be forwarded through the appropriate approval process as needed and resources allow.

<table>
<thead>
<tr>
<th>New Program Name/Expansion of Existing Program</th>
<th>Brief Description</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continually evaluate the changing needs for new and existing programs</td>
<td>GBC’s mission is to respond in a timely manner to the needs of the constituents of the GBC services area</td>
<td>2011-2014</td>
<td>As needed and can be afforded</td>
<td>Grants and private funding are always sought where and when possible</td>
</tr>
<tr>
<td>Expand and extend programs into Nye County</td>
<td>Conduct surveys of employers and prospective students, begin and expand programs into Nye County as need dictates</td>
<td>2011-2014</td>
<td>As needed and can be afforded</td>
<td>Unknown at this time, but possibilities exist</td>
</tr>
<tr>
<td>New Program Name/Expansion of Existing Program</td>
<td>Brief Description</td>
<td>Date of Implementation</td>
<td>Estimated Cost</td>
<td>Funding Sources Outside of State Dollars</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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<td>-----------------------------------------</td>
</tr>
<tr>
<td><strong>AAS degree in the area of alternative energy</strong></td>
<td>Electrical and mechanical programs tailored to specific needs for alternative energy. Recognition and Certificates of Achievement are also objectives</td>
<td>2011-2014</td>
<td>To be determined</td>
<td>Grants ($325,000), appropriations ($2 million), and equipment ($85,000) have already been received or allocated that respectively will assist in providing solar, geothermal and wind energy training opportunities</td>
</tr>
<tr>
<td><strong>Expand and maintain mine and industry workforce training programs</strong></td>
<td>Continue to evaluate opportunities for expanding contract training programs with mining companies and other industries</td>
<td>2011-2014</td>
<td>Minimal, mostly related to facilities. Staff is in place</td>
<td>Largely self funded through contract agreements</td>
</tr>
<tr>
<td><strong>ADN Nursing program</strong></td>
<td>Extend ADN Nursing program to Nye County. Schedule already delayed pending funding source</td>
<td>2012</td>
<td>$85,000/yr</td>
<td>External funding source is needed to begin program</td>
</tr>
<tr>
<td><strong>AAS in Emergency Response and Management</strong></td>
<td>Cooperative program being developed with UNR Fire Science Academy (FSA), contingent upon FSA status. Originally planned for 2008.</td>
<td>2011</td>
<td>Minimal, most instruction will be done by FSA personnel at contract rate.</td>
<td>FSA courses are self supporting.</td>
</tr>
</tbody>
</table>

**Student Services**

From a generous bequeath, the former Community Center has been transformed into the Gwendolyn and Paul Leonard Center for Student Life. In essence, it is quickly becoming a student union, where students are gathering to study and to recreate, building a sense of community. Recruitment, Student Life, the Bookstore, and Café X are in this Center for Student Life. The Student Government Association and clubs and organizations have offices and an interactive room to link all centers and satellite locations throughout the 62,000 square mile service area for meetings. This interactive capability facilitates unifying and involvement from all students at the various sites, enabling students to participate in forums and events, no matter where they are actually hosted. Student Services has utilized interactive facilities to aid in providing access for academic advisement, financial aid, and career services' workshops throughout the service area. The completion of the Student Life Center with dedicated
interactive facilities for student government also provides extra-curricular participation in activities and/or events.

Student Services, as part of a new seven-year Strategic Plan in 2009, details departmental strategic planning, which are not prioritized at this time and which are dependent on the state budget and institutional priorities.

<table>
<thead>
<tr>
<th>New Program Name/Expansion of Existing Program</th>
<th>Date of Implementation</th>
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</tr>
</thead>
<tbody>
<tr>
<td>“Student Union” Program Manager</td>
<td>2011</td>
<td>$50,000</td>
<td>Unknown at this time</td>
</tr>
<tr>
<td>Housing Support Staff-Assistant</td>
<td>2011</td>
<td>$30,000</td>
<td>Self-supporting through housing fees</td>
</tr>
<tr>
<td>Housing Coordinator – finish 3rd wing in Griswold Hall and add pavilion at Resident Suites</td>
<td>2011</td>
<td>To be determined</td>
<td>Self-supporting through housing fees</td>
</tr>
<tr>
<td>Admission Advising &amp; Career Center Advisor and an additional full-time staff member for Admission &amp; Records Office</td>
<td>2014</td>
<td>$90,000</td>
<td>Unknown at this time</td>
</tr>
<tr>
<td>Student Success (Retention) Program</td>
<td>2014</td>
<td>$50,000</td>
<td>Unknown at this time</td>
</tr>
</tbody>
</table>

*
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 delivering high quality education and services to our diverse communities.

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

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

Strategic Initiative 1: Achieving Student Success
Achieve student success by fostering a culture that ensures access to programs and services essential to student academic and personal achievement and demands and supports excellence in teaching and learning.

Strategic Initiative 2: Welcoming and Diverse Environment
Enhance and ensure a welcoming and diverse environment that is mutually respectful, socially supportive, accessible, safe, physically pleasing, provides opportunities for personal growth and meets the needs and demands of changing communities.

Strategic Initiative 3: Stewardship of College Resources
Maintain stewardship of college resources through responsible and accountable human, fiscal and facility management.

Strategic Initiative 4: Partnerships and Service
Maintain partnerships and service to build communities by strengthening and expanding connections with civic, community, educational and business/industry organizations.
The following table summaries new academic programs that TMCC plans to implement in the next four years (2011-2014):

<table>
<thead>
<tr>
<th>New Program Name/Expansion of Existing Programs</th>
<th>Brief Description</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
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</tr>
</thead>
<tbody>
<tr>
<td>English, certificate</td>
<td>Explore an ESL certificate program</td>
<td>2011</td>
<td>No anticipated additional cost</td>
<td>None expected</td>
</tr>
<tr>
<td>Health Information Technology Certificate</td>
<td>Explore and develop a Health Information Technology program</td>
<td>2011</td>
<td>$88,600: 1 full-time faculty; part-time faculty; accreditation fees</td>
<td>Perkins funding and/or other specialized funding for development process</td>
</tr>
<tr>
<td>Dental Assisting Expanded Functions, Certificate</td>
<td>Regulation is being discussed that would allow dental assistants to practice beyond the current practical scope</td>
<td>2011</td>
<td>$350,000 1.0 FTE plus operating expenses</td>
<td>None</td>
</tr>
<tr>
<td>Renewable Energy, AAS</td>
<td>Expand renewable energy as individual AAS degree with additional content in solar thermal, wind energy, geothermal, and energy efficiency</td>
<td>2011</td>
<td>$500,000</td>
<td>Private gifts, and federal grants from NSF, DOE, etc</td>
</tr>
<tr>
<td>Economics, AA</td>
<td>Explore an AA degree program</td>
<td>2011</td>
<td>No anticipated additional cost</td>
<td>None expected</td>
</tr>
<tr>
<td>Graphic Communications, AA</td>
<td>Develop Graphic Communications AA for transfer to an NSHE university</td>
<td>2011</td>
<td>No anticipated additional cost</td>
<td>None expected</td>
</tr>
<tr>
<td>Alternative Fuels, Certificate</td>
<td>Explore an Alternative Fuels Training program</td>
<td>2012</td>
<td>$500,000</td>
<td>None expected</td>
</tr>
<tr>
<td>Occupational Safety, certificate</td>
<td>Explore potential for new certificate program</td>
<td>2012</td>
<td>$40,000 0.5 FTE Faculty plus operating expenses</td>
<td>None</td>
</tr>
<tr>
<td>English – technical writing certificate</td>
<td>Develop a certificate in Technical Writing</td>
<td>2012</td>
<td>No anticipated additional cost</td>
<td>None expected</td>
</tr>
<tr>
<td>New Program Name/Expansion of Existing Programs</td>
<td>Brief Description</td>
<td>Date of Implementation</td>
<td>Estimated Cost</td>
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<td>-----------------------------------------------</td>
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</tr>
<tr>
<td>Fine Arts, AA</td>
<td>Explore the development of a radio, television, and film broadcasting degree</td>
<td>2012</td>
<td>No anticipated additional cost</td>
<td>None expected</td>
</tr>
<tr>
<td>International Business, AA</td>
<td>Explore the feasibility of creating this degree and, if economic &amp; market conditions prove it to be feasible, develop the degree</td>
<td>2012</td>
<td>TBD</td>
<td>Possibly Perkins and Center for International Business Education and Research Grants</td>
</tr>
<tr>
<td>Emergency Medical Services Degree (Paramedic), AAS</td>
<td>Implement accredited Paramedic AAS Degree</td>
<td>2013</td>
<td>No anticipated additional cost</td>
<td>None expected</td>
</tr>
</tbody>
</table>

*Feasibility studies on such programs will be done prior to development.*

**Student Services**

The following table summarizes new student services that TMCC plans to implement in the next four years (2011-2014):

<table>
<thead>
<tr>
<th>New Program Name/Expansion of Existing Programs</th>
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<th>Estimated Cost</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Mandatory Services</td>
<td>Program to promote student success and student retention through admissions, orientation, assessment, advisement, and follow-up</td>
<td>Spring 2007</td>
<td>Additional funds required to fully implement, estimated cost: $325,538</td>
<td>None expected</td>
</tr>
<tr>
<td>Guardian Scholar</td>
<td>A program for foster youth to provide access to higher education and TMCC</td>
<td>Implemented in Spring 2009 and 2010, will be implemented in Spring 2011</td>
<td>$1,000</td>
<td>Support from County Foster Care system and Washoe County Social Services for half the cost</td>
</tr>
</tbody>
</table>
Strategic Objectives

Western Nevada College (WNC) provides higher education learning opportunities for the Carson City, Fallon, Minden/Gardnerville, Hawthorne, Yerington, Dayton, Virginia City, Lovelock, Smith Valley, and Fernley communities. The Institutional Strategic Plan, approved by the Board of Regents in 2006, set measurable objectives for three institutional goals:

- Improve Student Success Rates
- Ensure Institutional Excellence
- One College-Serving Many Communities

Institutional data confirms a steady graduation rate in our AGS degree with increased graduation rates for the AA, AS, and AAS degrees. Data also confirms a significant increase in the number of students who currently attend the college on a full-time basis. College resources are used to the extent available to support this increase in student recruitment and retention activities.

Student Services provides ongoing recruitment through its popular Bridge to Success Program, which serviced over 650 high school students last year. The college offers its annual College Day every spring, which affords high school students the opportunity to visit the Carson and Fallon campuses, meet with college division representatives regarding program offerings and tour the facilities. The Tech Prep program assures students the opportunity to earn college credit in a number of career and technical courses that can transcript into 17 associate and 11 certificate programs at WNC. In doing so, it is the hope of the college and community that these students will graduate from high school and attend the college to complete a degree or certificate. Fall 2010 saw the college's most successful student orientation in its history. Over 600 new and returning students (in a one-week period) attended an overview and broke into smaller group cohorts developed to address their specific needs/concerns. A Latino outreach program has been in existence for the past year. This effort has resulted in the organization of a Latino Club. Members of this club serve as mentors and tutors to incoming Latino students. The outreach initiative also brought a cohort of 33 first-time, full-time Latino students to WNC this fall. They received a comprehensive orientation and successfully completed a one-credit college success course. A “coach” meets with these students on a regular basis and provides both the students and their parents with progress reports. The success of this program ensures its continuation into the future.

Several services offered by Student Services staff and academic faculty exist to help students maximize their learning and ensure their retention and success. Among them are the Early Alert, Peer Mentoring, Peer Advising, and Faculty Advising programs.

The college’s commitment to these programs as well as its excellent library facilities, which support both students and staff needs, were identified as two of the four commendations issued by the college’s most recent (May 2010) accreditation visit by NWCCU.

The college’s catalog and Academic Program Guide are reviewed and updated on a yearly basis. Suggested course sequences are listed to assure that, provided a student is a full-time degree seeking student, the student can complete a program in four semesters.
In order to improve efficiency and effectiveness to degree completion, the college recently developed a four-semester grid for all degrees (AA, AS and AAS) on the Carson campus. The grids show the specific time/day offerings of all required courses so that students can plan well ahead of time their schedules and meet their program requirements within a four-semester timeframe. A full array of general education courses have been scheduled to complement these offerings. It is the plan for AY 2010-2011 to design four-semester grids for the remaining campuses/sites and programs as well as an interactive video and online schedule that would enable rural students to complete an AA or an AGS.

Western Nevada College remains committed to institutional excellence. The college saw the first graduates of its Bachelors of Technology in Construction Management in 2009. In its recent accreditation report, NWCCU authorized the college full baccalaureate degree-granting authority.

Mindful of the recommendations made by NWCCU in its accreditation report, two essential priorities of Western’s academic master plan will be to hire full-time faculty in degree programs, which currently lack full-time faculty oversight and also strengthen academic program assessment of all WNC’s programs.

Even through a difficult budget crisis, student recruitment, student retention and student success have remained the foundation of WNC’s institutional excellence. As the NWCCU report observed in one of its four commendations (Commendation #1), “There is clear evidence of effective communication and cooperation at all levels, both bottom-up and top-down, leading to an efficient operation for the benefit of students.”

Providing learning opportunities for a geographic service area that exceeds 18,000 square miles can be challenging, but WNC is committed to meeting the needs of rural Nevada residents through traditional and non-traditional instructional delivery. While some classes can only be delivered online or by interactive video, college resources pay for small services, such as classroom facilitators, test proctors, and peer mentors to enhance the delivery mode. The Distance Education Coordinator and college librarians support on-line instruction. Instructors and support personnel strive to meet the needs of college students, recognizing that student success is institutional success.

All college academic faculty (full-time and part-time, regardless of site/campus) are under the administration/support of five division chairs who along with their administrative assistants, the Dean of the Fallon Campus/Rural Development, and the Dean of Instruction and Vice President of Student and Academic Affairs work together to ensure student success, institutional effectiveness, and the culture of WNC’s goal to provide quality education to all of its students. The five academic divisions are:

- Nursing and Allied Health
- Communications and Fine Arts
- Science, Math and Engineering
- Social Science, Education, Humanities, Business, and Public Service
- Technology and Computers.
**Academic Programs**

Existing programs undergo comprehensive program reviews every five years. Program heads work closely with the institution’s Program Assessment and Review Committee (PARC). Data is gathered and analyzed and a site visit takes place each spring. Both an internal reviewer as well as an external reviewer are part of the program review. A Five-Year Action Plan is submitted as part of the program review report.

In addition to the five-year program review, each program also works with PARC on yearly assessment plans, which link program goals with the institution’s strategic goals.

The Division Chairs discuss with the faculty members in their respective divisions, on an ongoing basis, the status of existing programs. The Division Chairs and the Dean of Instruction meet weekly and discuss and examine existing programs as well as potential new programs. Recommendations regarding program modification, termination or additions are forwarded to the Vice President of Academic and Student Affairs and the President of the college.

The institutional academic planning process is a collaborative effort, which includes feedback from technical advisory boards as well as community advisory boards. Technical advisory boards review academic curricula and course content to ensure that programs reflect industry standards. Community advisory boards review student success rates and academic planning processes offered to students in each community.

Academic and Student Services partner with a number of constituents and community colleagues from health care, business and industry, sister institutions, and public school districts. Learning outcomes support the intellectual knowledge, practical skills, and academic engagement required for a successful student to meet the demands of a prepared workforce or university transfer program.

The college has committed to offer alternative pathways that will allow students to meet nationally-recognized industry standards. For example, the facilities and faculty or the welding program have obtained certification by the American Welding Society, and WNC now has the only certified welding test facility in northern Nevada. In 2011, the college will begin to offer classes that will enable successful students to receive their I-Car credentials permitting them to seek job opportunities in the collision and auto body repair fields and will be offering the same credentialed opportunities to students in the CAD area. The college also offers interpreting classes (American Sign Language) that allow presently-employed interpreters to improve their skills and provides training for new individuals to move into the profession. Armed with these industry credentials, students can seek employment and continue their education in our current degree programs.

The college embraces its partnership with Nevada State College to prepare elementary school teachers to work in rural Nevada schools. WNC students can complete the first two years of the program through WNC. Nevada State College offers the junior and senior year classes through distance-education and on-site traditional classes on WNC campus sites. We hope that this valuable program will continue to be offered for rural Nevada students. Students who currently reside in rural Nevada are more likely to remain in rural Nevada, if educational opportunities are available in the geographic area, and job availability is high. It is less costly for a rural school district to help educate a local resident than it is for the same school district to recruit out of the area for new teachers. Plans are underway to continue a discussion with Nevada State College to explore additional partnership opportunities.
After careful consideration the college is considering some new academic program opportunities. These are primarily in response to workforce needs in the state of Nevada. With the current budget situation the college is looking at initial and continuing funding from a third-party source.

The Nursing and Allied Health Division is proposing the addition of programs in the health care fields. There is high demand for health-related programs from both students in our service area and employers. One proposed initiative would allow us to offer a “parachute” program to applicants unable to gain entry into our very competitive nursing program, those looking for patient contact at the certificate level. The other initiative would allow us to fill employment vacancies for Physician Assistants in both Northern and Southern Nevada. In addition we would expand the capacity of our current nursing program utilizing the labs and clinical sites on weekends, evenings, and summers. Technology would be used to deliver portions of the curriculum to students in our service area, including rural students.

Western Nevada College has been working closely with the Carson Area Manufacturers Forum and is collaborating with this group to provide educational opportunities to individuals, which will allow them to develop a skill set that meets the needs of the manufacturing/industrial community of Northern Nevada. The extension of this educational plan, to eventually offer a technical bachelor’s degree, is supported by the Manufacturing Collaborative Advisory Committee and also the college.

<table>
<thead>
<tr>
<th>New Program Name</th>
<th>Brief Description of Plan</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Possible Funding Sources Outside of State Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacology Technician, Certificate of Achievement</td>
<td>Develop and implement an accredited program that would help assure an adequate supply of pharmacology technicians in Northern Nevada. Graduates would be eligible to sit for the national certification examination.</td>
<td>Fall 2012</td>
<td>$122,500</td>
<td>Grant and industry funding</td>
</tr>
<tr>
<td>Physician Assistant, Bachelor of Technology</td>
<td>Develop and implement an accredited Bachelor of Technology physician assistant program. The program would educate qualified applicants to meet the increasing demand for health care services for citizens across the life span in rural and northern Nevada.</td>
<td>Fall 2013</td>
<td>$145,500</td>
<td>Federal and private grant funding and Industry funding</td>
</tr>
<tr>
<td>Engineering Technology Bachelor of Technology</td>
<td>Develop and implement an engineering technology degree within a broader framework of operations knowledge, specializing in direct manufacturing support of a technical nature.</td>
<td>2013</td>
<td>$125,000</td>
<td>Industry funding, national and state grant funding</td>
</tr>
</tbody>
</table>
**Student Services**

WNC is an institution committed to student success, teaching excellence, and internal and external partnerships. The following is a quote from the NWCCU accreditation visit in May, 2010, “The Committee commends the College for its active commitment to student access and success through its exemplary services, experiences, and opportunities created and administered collaboratively by student services staff and faculty that help students engage in meaningful ways with the institution.” These services, experiences and opportunities will continue and over time, mindful of budget constraints, we must plan for additions and changes to appropriately support our growing numbers of full and part-time students.

One new service, to assist students, must be implemented in the next year, the new student registration system, iNtegrate. This will require additional support from all student services offices. WNC must continue to fund the student support staff necessary to implement and operate this system.

<table>
<thead>
<tr>
<th>Brief Description of New Student Services</th>
<th>Date of Implementation</th>
<th>Estimated Cost</th>
<th>Funding Sources Outside of State Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions &amp; Records – Continue to support Programmer/Analyst position for new iNtegrate System</td>
<td>2010</td>
<td>$75,000</td>
<td>Student iNtegrate fees</td>
</tr>
<tr>
<td>Counseling – Career Counselor to develop and implement a “Student Development Program,” including the set up of internships and a “Career Development Center.” Expand services to rural students.</td>
<td>2011</td>
<td>$80,000</td>
<td>Grant funding</td>
</tr>
</tbody>
</table>
Strategic Objectives

Desert Research Institute (DRI) administration, faculty, and staff are engaged in a comprehensive strategic planning process that will lead to the submission of an integrated institutional strategic plan for the Nevada System of Higher Education (NSHE) Board of Regents’ approval in March 2011. Most of this plan has already been developed. The materials that follow are excerpted from the draft materials contained in the plan. These include:

- 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.

New Education Initiatives

DRI is engaged in discussions with University of Nevada, Reno (UNR) and University of Nevada, Las Vegas (UNLV) concerning the development and continuation of two statewide education programs during 2009-2012. Since these programs are still in the feasibility study phase, no estimated costs of program development are listed. It should be noted that the statewide renewable energy program, Nevada Renewable Energy Consortium (NVREC), contains workforce development and outreach components and does not rely on non-state funding.

- Statewide Graduate Water Resources Program
  DRI is working collaboratively with the UNR and UNLV to explore the possibility of establishing a new integrated statewide graduate academic program in water resources. This new program would use NSHE’s expanding communications capabilities to bring
together UNLV’s M.S. Water Resources Management Program and UNR’s Graduate Program of Hydrologic Sciences and make degrees equally accessible to all interested DRI, UNLV, and UNR faculty. The increased participation of faculty from all three NSHE research entities would create a truly nationally competitive critical mass of expertise to foster improved research and educational collaborations.

- **Statewide Renewable Energy Education Program**

As part of the federal initiative requested by NSHE, the NVREC, is helping Nevada achieve its vision of energy self-sufficiency through an integrated approach involving research, development, and demonstration (RD&D). This center is a truly collaborative endeavor amongst the three NSHE research institutions (DRI, UNLV, and UNR). Improving the academic foundation to educate and train Nevada’s future renewable energy workforce is a key objective for the Consortium. The long-term vision includes developing integrated system-wide undergraduate and graduate interdisciplinary degree programs with participation from traditional departments in engineering, environmental sciences, political science, economics, and business at the university, community college, and college levels.

**New 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 the next four years. Extramural awards will support these programs.

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

DRI will expand its research expertise in water resource assessment and the impacts of climate change on those resources (in Nevada and other western states) in collaboration with key water 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 water 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 will expand 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 global 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., CO₂, 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.

• **Evolution of Centers and Programs**

DRI will investigate how to better foster the successful incubation and maturation of research projects including evaluation of integrated science centers (ISCs). DRI's Research Advisory Council (comprised of Division and Center Directors along with faculty representation from each division and the Faculty Senate Chair) has developed a formal Interdisciplinary Science Center (ISC) review process that will ensure accountability while including the opportunity for new ideas to surface.

**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., CO₂, 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.