

# Search for the Dean of Engineering University of Nevada, Reno

#### **Executive Summary**

The University of Nevada, Reno (UNR), a distinguished public university located in northern Nevada, seeks a dynamic, experienced administrator to serve as Dean of the College of Engineering. This position serves as the chief academic officer for the College, and reports to the Executive Vice President and Provost. The successful candidate for this position has an outstanding opportunity to forge and execute a comprehensive vision to inspire and lead this vital college into an exciting new era.

The Dean of the College of Engineering is responsible for academic programs and support services within the College, which comprises five departments including Chemical and Metallurgical Engineering, Civil and Environmental Engineering, Computer Science and Engineering, Electrical and Biomedical Engineering, and Mechanical Engineering. The Dean's responsibilities include curriculum development, planning and assessment; faculty development, promotion, and tenure; academic budgeting; research support; and academic support services for students. The Dean also plays an important external role on behalf of the College and works in collaboration with leaders across the University, System, and state. For more information about the College of Engineering, please see http://www.engr.unr.edu.

Upon assuming this position, based on UNR's public and land-grant mission, the Dean will help to attract a growing number of high-caliber students and faculty members; enhance administrative and physical infrastructure; seek out and foster public and private funding opportunities for faculty and students; deliver consistently excellent academic programming; and develop innovative research initiatives that serve the needs of Nevadans while elevating the University's reputation in engineering across the nation.

UNR is the state's flagship land-grant research and teaching institution. The University currently operates with a total budget of nearly \$500 million, and enrolls nearly 17,000 students. UNR employs more than 1,600 academic and administrative faculty members and 1,300 classified staff on four campuses; it encompasses nine degree-granting schools and colleges, which offer bachelor's degrees in more than 75 disciplines, as well as more than 100 masters and doctoral-level degrees. UNR operates as one of eight institutions of higher education governed by the Nevada System of Higher Education (NSHE). For more information, see <a href="https://www.unr.edu">www.unr.edu</a>.

In 2006, President Milton Glick assumed leadership of UNR. In his first year, President Glick laid out an ambitious vision for UNR to establish itself as a leading university for the West, by growing and improving its research activities, enhancing the scope and quality of its academic programming, and integrating its work across the local and global community. A new Provost has recently been appointed to work in close partnership with President Glick in realizing this agenda, leading faculty, staff, and students to work together in a shared sense of pride and dedication to excellence. It is within this setting that the Dean of Engineering will join the senior academic team.

A list of the qualifications for the Dean may be found at the conclusion of this document. All confidential applications, inquiries, and nominations can be directed to the parties listed at the end of this profile.

## The College of Engineering

Providing a solid foundation in engineering fundamentals, the College of Engineering offers engineering degrees to more than 1600 students at the undergraduate and graduate level. The curricula are designed to prepare students for careers of service, leadership, and distinction in their chosen field. The strong interrelationship between the community and the College of Engineering provides students with numerous opportunities fore research, internships, shared learning, and employment. The College is nationally recognized for its research and outreach programs. It ranks in the top 5% of the 4,000 four-year colleges and universities and is listed in *U.S. News and World Report* as one of the best graduate schools in the nation.

The College of Engineering maintains a number of laboratories and research centers, including imaging and robotics, nanomaterials, advanced photonics, electromagnetics, smart materials and systems, machine intelligence, nuclear materials, pavement materials, renewable energy, and earthquake engineering, a facility which ranks among the top fifteen facilities in the nation. Its distinguished faculty are actively involved in teaching and research. Many hold influential positions in national and international engineering organizations, including that of ASME Fellow, IEEE Fellow, Foundation Professor, and ASEE outstanding educator. Many are principal or coinvestigators on research grants with the National Science Foundation, Department of Energy, Department of Defense, and other nationally recognized entities.

The College has a program of engagement with industry in the Northern Nevada region. Utilizing the expertise of its faculty and state of the art facilities, the College has developed partnerships with companies such as IGT to add expertise in the areas of artificial intelligence and computer games, and a program where Sierra Pacific Power Company sponsors faculty research in the area of renewable energy. Facilities include the Earthquake Engineering Laboratory, equipped for utilization in research and where industry is required to have earthquake certified nonstructural products.

The College generates 57% of its annual expenditures through external support and receives approximately 37% of its budget from state funds. Sponsored research awards have expanded to over 49% of total revenues, exceeding \$14M.

#### The Role of the Dean of Engineering

The Dean of Engineering reports to the Executive Vice President and Provost of UNR, who is responsible to the President. Among the positions reporting to the Dean are the Chairs of the College's five departments, as well as an Associate Dean for Curriculum and Assessment; a Coordinator of Budget and Personnel; an Executive Assistant to the Dean; a Director of Development; an Assistant Director of Development; a PR Representative; a Coordinator for Recruitment, Retention, and Advising; and a Student Advisor. The Office of the Dean is responsible for development of curricula, delivery of academic programming, student support services, research support, facilities and operations management, and all other areas of operation in the College.

## The University of Nevada, Reno

Founded in 1874 in the town of Elko, the University of Nevada was the state's first institution of higher education, a land-grant university established to create and sustain agricultural and other academic programs to serve the people of the state of Nevada. In 1887, the University was moved to a 250-acre site just north of downtown Reno, on to a campus modeled after Thomas Jefferson's design for the University of Virginia, where it remained the state's only institution of higher education for 75 years.

Today, UNR operates as part of the Nevada System of Higher Education (NSHE), a statewide system that also includes a major university campus in Las Vegas (UNLV), the Desert Research Institute, Nevada State College, College of Southern Nevada, Great Basin College, Truckee Meadows Community College, and Western Nevada College. The NSHE Board of Regents approves budgets for the individual campuses, and allocates System resources in concert with its overall goals for higher education in the state. For more about the NSHE, please see <a href="http://system.nevada.edu">http://system.nevada.edu</a>.

UNR currently spans four campuses: the main campus in Reno; the Redfield Campus, in south Reno; the Las Vegas campus of the University of Nevada School of Medicine and Cooperative Extension; and the Elko campus of the Fire Science Academy. UNR has seen significant enrollment growth from a student body of about 12,000 in 1998 to nearly 17,000 today, due to population growth and the establishment of the Millennium Scholarship<sup>1</sup>.

UNR is one of the top 120 universities in America for funded research, according to the Carnegie Foundation; UNR is a Doctoral/Carnegie Research Extensive University engaging in "high research activity," and has traditionally been ranked by *U.S. News and World Report* as "National University, Doctoral (Tier III)." Over the last decade, external funding for UNR programs has increased from \$20 million to more than \$150 million. UNR has deep roots in the sciences, and serves as home to the University of Nevada School of Medicine. The University operates more than 40 research centers, and has earned national distinction for its programs in environmental literature and sciences, biotechnology, hydrology and earthquake engineering. For more information, please see <a href="https://www.unr.edu/research/centers.html">www.unr.edu/research/centers.html</a>.

In keeping with its mission as a land-grant university, UNR extends its teaching, consultation and research across the state. Examples of UNR's outreach efforts include the Cooperative Extension program which benefits the state's agriculture, economic development, health care, environment, and other quality of life issues; the Nevada Agricultural Experiment Station, which works to enhance agricultural crop production and manage water supplies, and the Bureau of Mines and Geology, which supports Nevada's mining industry. UNR also reaches out to the state through the University of Nevada School of Medicine which manages a health network that extends to much of rural Nevada, and through its myriad partnerships with Nevada's K-12 and pre-school educational community.

UNR has earned a strong reputation for its student-centered education, committed and collegial faculty, and motivated, career-oriented students. All undergraduates enroll in a Core Curriculum, which provides a classic liberal arts education at a fraction of the price of similar prestigious private programs. Students may also participate in an Honors Living and Learning Community, undergraduate research projects, or study in a foreign country through the University Studies

<sup>&</sup>lt;sup>1</sup> Enacted in 1999, the Millennium Scholarship provides a benefit toward state university education to Nevada students who graduate high school with a GPA of 3.25 or higher and pass the state examinations.

Abroad Consortium, which was developed at UNR nearly a quarter-century ago. UNR also gives access to its programs through an Extended Studies program, which offers evening-studies courses, independent learning, and other schedule-friendly options.

UNR students participate in a vast array of cultural, social, and athletic activities on an informal and formal basis. UNR sponsors a winning Division I athletics program that participates in the Western Athletics Conference. The Kennedy Index<sup>2</sup> rated the University of Nevada "best in the nation" overall for providing opportunities for women in sports; in 2006, UNR was ranked in the top 10 of NCAA Division 1-A athletic departments in overall diversity excellence. Outside the classroom, students enjoy whitewater kayaking, snowboarding, rock climbing, and other activities. For more information about student life, please see <a href="https://www.unr.edu/content/students/">www.unr.edu/content/students/</a>.

#### President Milton Glick and his vision for UNR

President Glick has established an ambitious vision for UNR. In his inaugural address in 2006, the President highlighted three major areas of emphasis for UNR: improving educational opportunities and attainment; increasing the size of the University in all areas, including faculty, students, and research funding; and stimulating positive economic growth and development in the region. President Glick aspires for UNR to develop a widespread reputation as a center for innovative research and high-quality instruction, an institution capable of attracting world-class students from around the state and beyond, and of garnering increased funding from a variety of sources while serving the direct needs of the people of the state. To read President Glick's inaugural address, see <a href="http://www.unr.edu/inauguration/Glick\_inaugural\_address092906.pdf">http://www.unr.edu/inauguration/Glick\_inaugural\_address092906.pdf</a>.

#### Key opportunities and challenges for the Dean of Engineering

We will build on our strengths—an institution with selected areas of excellence, and a supportive and growing community with a high quality of life.

-- President Milton Glick, "Inaugural Address," 2006

The Dean of Engineering will be joining the College at a particularly key moment in its history. The College has much to offer the engineering, scientific and industrial communities in the 21<sup>st</sup> century. The College also faces some significant obstacles that it must overcome, most notably in the areas of funding and facilities. The Dean will work with faculty, staff, and students to build upon the College's strengths, and weave them through cross-disciplinary and interdepartmental programs that provide direct practical value to the State of Nevada and beyond. The new Dean, will lead the College to increase in quality and internal cohesion as well as to broaden the scope of its influence, thereby achieving its goal of being a top-tier college of engineering in the U.S. In order to succeed, the Dean must meet several key challenges, which are described in detail below:

Craft a strategy that captures the imagination of faculty and funders

The Dean of Engineering will be responsible for working with faculty and staff to develop a multifaceted strategy that will delineate the present and future mission of the College. This strategy must be relevant to the breadth of the College's diverse faculty and funders, providing a view of the future that will bring together varied departments around exciting initiatives and foci. The strategy should encourage activities within the College, as well as with other departments

<sup>&</sup>lt;sup>2</sup> A study released in 2005 by Penn State University-York professor Charles Kennedy.

across the campus and other entities across the state, distinguishing the College in unique and marketable ways. Engineering can lead the way to initiate collaborative efforts with, science, medicine and business, creating new value propositions and solutions to problems that embrace science, technology and policy. An example of an area of such an effort is the move to stimulate curricular efforts in renewable energy. The Desert Research Institute and University of Nevada Las Vegas are also seeking collaboration on water research, providing opportunities for interinstitutional collaboration.

The Dean will delineate key programmatic strengths and establish goals for the College's short-and long-term future; focus on creating areas of excellence connected to adequate funding streams from both public and private sources; provide the framework for a consistently high-quality, practically valuable experience for students; and chart a course for the College of Engineering to further its reputation as a productive center for valuable research. This vision will propel the College to a leadership position, always with an eye to the land grant mission of the College and the University. The Dean's vision will captivate and harness the energies of faculty, staff and students working across the College and promote growth in interdepartmental collaboration, revenues, enrollment, and research activities. Through effective and dynamic leadership, the Dean will build pride in the College, not only in its own growing achievements but in the way it can model excellence and influence the broader success of the whole institution.

Further develop the financial resources that will stimulate research, teaching, and scholarship

Recent growth in student numbers and research initiatives in the College demonstrates its success; however, the increases have stretched the College's human resource and facilities bases. The College is in need of additional faculty, classified staff, and graduate assistant positions, as well as dedicated research support staff. The College is also in need of new and renovated research facilities, classrooms, and faculty and staff offices. In addition, equipment maintenance and repair and laboratory equipment purchases press hard on the College's financial resources. One particularly pressing need is for undergraduate laboratory space and equipment. The Dean will be required to grow and sustain revenues to ensure the current and future success of the College's programs.

To meet this challenge, the Dean should inspire and lead the faculty and should identify and undertake initiatives that have market relevance and capitalize on the College's existing strengths. The Dean must be prepared to take calculated risks in a balanced way, knowing the costs and the potential upside for the College. The Dean will support the growth of the College's physical and programmatic infrastructure by seeking out and developing philanthropic funding opportunities, particularly for endowed chairs and professorships and graduate student fellowships, equipment endowments and building renovations and expansions. In addition, the Dean will need to work with and support the faculty to develop new research funding streams from state and federal government agencies as well as foundations and corporate sources, particularly ones that bring the various parts of the College and/or University together in large scale initiatives.

In order to make the College more attractive to both private and public funding sources, the Dean will need to work continually toward raising the academic stature of the College by effectively managing enrollment. Specifically, the Dean will need to work with the faculty and Admissions department to recruit more National Merit Scholars. In addition the Dean will need to work with and support faculty in finding ways to improve graduation and retention levels.

The Dean will lead the College to become a self-sustaining economic engine capable of continually seeding valuable research initiatives, generating new patents, and growing in size and scope while continuing to deliver a high-quality education to students at all levels.

Effectively represent the College within UNR and across the greater community

To successfully bridge the work of the College to the greater campus and state, the Dean must be an eloquent, thoughtful ambassador in a variety of local, state, and national forums, particularly the National Science Foundation and other prominent funding and professional organizations. The Dean serves as the public representative of the College of Engineering, and as such must be able to represent and articulate all of its diverse interests. The Dean will also lead the College to be more engaged with K-12 schools to generate interest in engineering education, as well as work within the university to ensure that engineering courses and programs are engaging and useful to attract non-engineering majors. The Dean will need to advocate effectively for the College while working collaboratively with other units on campus.

As a key part of this challenge, the Dean must directly integrate the work of the College with other programs across the UNR campus. In addition, the Dean must increase the College's visibility across the UNR campus, Northern Nevada and beyond. The Dean will also work with state educators to encourage innovations in the various engineering disciplines across Nevada. The Dean will work with external partners to bring the fruits of the College's research initiatives and insights into the community at every level, and create relationships with businesses both within Nevada and nationally that will bring new research opportunities, as well as internship and professional opportunities for engineering students. Through effective outreach, the Dean has the potential to develop innovative, practice-based research and learning opportunities that elevate the quality of research in other academic divisions and provide direct value to the state, region, and comparable environments worldwide.

Retool and, if necessary, create an environment and infrastructure that will foster and support a unique, integrated world-class engineering program.

As the diverse fields of its engineering research and teaching mission require extensive equipment, the College has a pressing need for expanded and upgraded facilities. Thus, one of the Dean's challenges will be to embark on an effort to creatively and cost-effectively renovate, reconfigure, and upgrade existing facilities. New facilities, both laboratory space and administrative offices, must be built to accommodate its growing enrollment and expanding research initiatives.

The Dean will also improve the organizational infrastructure and will need to be energetic, persistent and creative in bringing departments together, encouraging interdisciplinary interaction and mutual support and creativity. Such collaboration is critical to the future success of the College, in order to ensure that the necessary mass and growth exists to support its initiatives.

The Dean will also invest in the College's human assets, working toward facilitating administrative communication to ensure that all staff and faculty work in close alignment toward common goals. To that end, the Dean will need to develop new systems for professional and personal support of both faculty and staff. Such systems will include the development of mentoring programs for junior faculty as they develop their professional careers, as well as planning for faculty and staff retirements, including the celebration of successful careers and the commemoration of institutional history and legacy. The Dean will need to engage faculty and pay

close attention to the appropriate balancing of teaching load and research expectations in a way that optimizes the capabilities of individual faculty.

The Dean will create an infrastructure to support improved research and teaching, and provide professional support for faculty and staff through mentoring, cross-divisional training, and other practices. The Dean of Engineering will celebrate the diversity of the College at the same time that he/she leads it toward a far more unified sense of identity. The Dean should be sensitive to departmental differences as he/she streamlines processes, protecting the unique assets and working styles that make each department successful while seeking opportunities to increase functional and economic efficiency.

## **Qualifications and Characteristics**

*The Dean of the College of Engineering will have the following qualifications:* 

- An earned doctorate and a record of distinguished scholarship and teaching requisite for an appointment as a tenured full professor.
- Demonstrated record of successful academic leadership at the level of department head or above or comparable experience in industry or government.
- Substantial administrative experience with budgeting and financial planning.
- Proven experience in recruiting, developing, retaining, and evaluating faculty and professional staff.
- An established record of working with a diverse staff and demonstrated commitment to diversity in areas of hiring, promotions, retention and programs.
- Experience relating to external constituencies, such as public agencies, funding agencies, industry, alumni, and donors.
- Demonstrated record of excellent interpersonal and leadership skills including the ability to motivate a diversified faculty and staff in support of the strategic vision, effectively problem solve and negotiate.
- A well regarded history of personal and professional ethics, character and integrity.

*Other desirable qualifications and characteristics include:* 

- Ability and desire to garner philanthropic, corporate, and grant support.
- A record of community service.
- An understanding and commitment to shared governance.
- A belief in delegation of power and authority with appropriate controls.
- A successful record of developing, implementing, and sustaining innovative policies and programs that foster excellence in teaching, research, and service in higher education.
- An ability to communicate with diverse audiences: to collaborate and communicate effectively across college lines and foster collaborative academic environments, capitalizing on assets throughout an institution.
- Strong knowledge of issues and trends facing the engineering and related disciplines.
- Strong communication skills with a commitment to inclusiveness, transparency and consensus building.
- Firm, fair, and consistent judgment, combined with an ability to make and communicate tough decisions.
- Energetic, action-oriented.
- Familiarity with ABET Accreditation Standards.

#### **Compensation and Location**

Compensation will be competitive and commensurate with the successful candidate's professional experience. This position is located in Reno, Nevada, which is 45 minutes from Lake Tahoe and a four-hour drive from the San Francisco Bay Area. With a beneficial tax climate, reasonable commute times, low unemployment, and a diverse selection of arts, cultural and entertainment events, Reno, Nevada has boomed in recent years. In 2005, *Inc. Magazine* rated Reno as the "#1 Place to Do Business." Reno's per capita income is the 10th highest in the nation, based on a bizjournals.com ranking of 224 cities. Reno is currently enjoying a renaissance in its arts and culture, with galleries and bookstores as well as opera, several theatre groups, symphony and chamber orchestras, a jazz festival, month-long summer arts festival, and other cultural events. The Reno/Tahoe area offers bicycling, whitewater rafting, kayaking world-class skiing, fly fishing, climbing, hiking, and countless other outdoor activities.

## **Applications, Nominations, and Inquiries**

Applications should include a letter of interest, CV or resumé, and a separate list of references. All correspondence, including applications, nominations, and general inquiries, should be emailed to the attention of David Bellshaw and Deborah Hodson at <u>3612@imsearch.com</u>. *E-mail correspondence is strongly encouraged*. All correspondence will be held in strict confidence.

David Bellshaw and Deborah Hodson Isaacson, Miller 649 Mission Street, San Francisco CA 94105 Phone: 415 655 4900

Phone: 415.655.4900 Fax: 415.655.4905

The University of Nevada, Reno is committed to Equal Employment Opportunity/Affirmative Action in recruitment of its students and employees and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and sexual orientation. The University of Nevada employs only United States citizens and aliens lawfully authorized to work in the United States. Women and under-represented groups are encouraged to apply.

Newly hired faculty must have their official transcript of their highest degree received or verification of licensure from the Nevada State Board of Medical Examiners (physicians) sent by the degree granting institution(s) directly to University of Nevada, Reno Human Resources within 30 calendar days from the effective date of employment.