



Economic Development and Innovation

The University of Nebraska is a catalyst for growth and prosperity. We are instrumental in solving the world's greatest challenges. We strive to look ahead and prepare for the unknown. Our bold thinking impacts the global community.

1. We are an adaptable institution that embraces change
2. We align our efforts around societal problems
3. We value and support experiential learning in all disciplines
4. We embrace a culture of informed risk taking



Strategies

1. Organize academic units around societal problems
2. Intensify experiential learning in all disciplines
3. Build and support experiential learning facilities to allow diverse groups of people to more naturally mesh and collaborate
4. Promote an entrepreneurial mindset, both as a university culture, and to create start-up activities.
5. Create a strong mentorship culture
6. Establish closely aligned connections to our business partners
7. Establish a culture of informed risk taking



Initial Action Steps

Strategy 1

Organize academic units around societal problems

- Survey the University and external partners for core societal problems we would like to tackle and initially decide on one core area
- Create a pilot degree program around this societal problem which allows students to engage in multi-disciplinary areas of study
- Create tenure path/home in this academic unit
- Create a new industrial/academic research space at the NIC that supports this problem solving approach to education
- When this is successful, repeat in another area



Initial Action Steps

Strategy 2

Intensify experiential learning in all disciplines

- Create “coalition” of capstone design teams to create hardware-based design projects at Nebraska Innovation Studio. Raikes, engineering, graphic design/new media business, CEHS or others. Have these teams meet at NIS at the same time and have them cross pollinate each other’s projects with their skills.
- Require students to take part in experiential learning, with the goal of 100% participation. This can include internships, capstone projects, study abroad opportunities, job shadowing, mentorship, networking events or skills competitions. Build state wide connections to assist with this
- Hold UNL sponsored RFP to create courses that involve industry engagement
- Map the entire University curriculum to understand where experiential learning is successful and model that behavior in all departments
- Assemble taskforce to promote student internships and mentorships
 - Promote internship opportunities in 200-level classes across campus
 - Recruit industrial partners across the nation
 - Tap alumni network to create mentorship program
- Elevate support for Nebraska Innovation Campus, Nebraska Innovation Studio, Industry Relations, and NUtech Ventures, all of whom are tasked with interactions with industry to create more experiential learning opportunities with industry partners
- Promote social intelligence as a major benefit of experiential learning



Initial Action Steps

Strategy 3

Build and support experiential learning facilities to allow diverse groups of people to more naturally mesh and collaborate

- Expand academic use of multi-disciplinary facilities such as Nebraska Innovation Studio (NIS)
 - Complete classroom facilities at NIS to host curriculum from across campus
 - Complete facilities at NIS including rooms for capstone design teams from across campus
- Create multidisciplinary design thinking/innovation courses to be taught at NIC/NIS
 - Start with engineering, architecture, Raikes, etc.
- Continue to drive diverse groups to NIC for multi-disciplinary projects and programing
- Create a physical Student-Industry engagement center at NIC, for use by all faculty for their class that involves industry engagement.
 - A flexible class/work space, away from their normal class spaces
 - Ring of leasable offices for companies with strong hiring/student engagement relationships, e.g. Union Pacific, FISERV, Garmin
 - Creates a toe-hold opportunity for companies that seek a more robust student engagement relationship at NIC that does not currently exist. This is as much a NIC tenant development exercise, as support for teaching and learning.
- Provide venues for students to develop social intelligence that is critical for employment
- Invest in portable infrastructure that allows students to travel to experiential learning opportunities



Initial Action Steps

Strategy 4

Promote an entrepreneurial mindset, both as a university culture, and to create start-up activities

- Support faculty, staff, and students who have an interest in company formation.
 - Create a streamlined process
 - Form a startup support group
 - Provide support from administration
 - Help finding and funding physical space
- Elevate support for proof of concept funds available for early stage technologies to increase value in licensing
- Raise a fund for commercialization activities
- Promote SBIR & STTR applications
- Review and revise promotion and tenure process so entrepreneurial activities are valued and counted.
- Develop infrastructure to support crowd source financing of high growth and Nebraska local companies
- Invest in programs, marketing, and infrastructure to become a national hub for women owned high growth startups
- Create Entrepreneur in Residence Program at NIC/NIS
- Map the entire University curriculum to identify entrepreneurial training opportunities and expand this to all degree programs
- Develop an interdisciplinary focused entrepreneurial class or experience (Potential collaborations between the College of Business, The Engler Program, the Raikes School, the Entrepreneurship Clinic at the College of Law and NUtech Ventures).
- Create hardware-based entrepreneurship program at Nebraska Innovation Studio
- Create student “hack” weekends at NIC
 - Hack medicine, hack transportation, hack (every discipline on campus).....



Initial Action Steps

Strategy 5

Create a strong mentorship culture

- Encourage all faculty, staff, and students to take on the role of mentor and/or mentee, both internally at the University and externally with business leaders
- Message the importance of mentorships with an emphasis on workforce competencies of communicating, collaborating and mental agility
- Strategic engagement of alumni industry leaders and rising stars to serve as “industry fellows (in residence)”, adjuncts, etc.
- Create mentorships through community members at NIS
- Create a virtual alumni network group to match students with graduates in a mentorship capacity (like match.com for mentorships)
- Establish a relationship between NUtech Ventures/Industry Relations and the Alumni Association that could increase connections between technology commercialization efforts and industry experts
- Implement large program building to promote curiosity, discovery, creation, and translation for K-12



Initial Action Steps

Strategy 6

Establish closely aligned connections with our business partners

- Create an active UNL advisory board with a broad range of industry members to advise UNL on economic development activities, provide input on curriculum, aid in student preparation for the workforce AND make changes based on their recommendations
 - Stay relevant with close connections to business leaders
 - Keep our finger on the pulse of the job market
 - Assess educational alignment with workforce needs
 - Close the education to employment skills gap
- Hire business and industry leaders (CEO business types) to participate in research programs
- Draw companies to Lincoln and statewide research sites according to strength areas in research like microbiome, actuarial sciences, beef systems, materials and sensors, etc.
- Create a visiting scientist program, that embeds UNL faculty in industry, and reciprocally hosts industry scientists, engineers and practitioners at UNL
- Recruit companies to NIC to work closely with university faculty and students
- Embark on 10 year effort to create 15,000 knowledge worker jobs in NE with a long term goal of 50,000 clustered around NIC



Initial Action Steps

Strategy 7

Establish a culture of informed risk taking

- Create awards for high risk/high reward failures. Positively acknowledge these efforts
- Create graduate/undergraduate/faculty/staff fellowships within UNL to allow “exploration” of risky endeavors
- Create cross-campus curriculum on design thinking, creativity, and risk
- Allow flexibility in degree programs for students to take classes outside of their core areas for pass/fail
- Emphasize students starting companies and provide support
- Create incubator/accelerator programs and space to support startups
- Continue to invest in the IP portfolio at the University, which is inherently a risky and long-term endeavor
- Create a mechanism to crowd source solutions to UNL/community/research challenges from the UNL community
- Promote adoption of technological advances in all disciplines
 - e.g. machine learning classes for English Majors



Measures

- Survey and track annually the increased % of faculty, staff, students, and recent graduates involved in mentorship and track those that start or are involved with new ventures and job creation that results from this activity
- Track increases in sponsored research to the University, new business that locate in NE, patents filed, and products in the market that are affiliated with UNL
- Map entire curriculum and measure increases in hiring, building spaces, and opportunities that support economic development, entrepreneurship, innovation, and experiential learning
- Become a top 100 Innovative university according to Reuters
- Identify a societal problem to address as a pilot project within a year. Within two years, create a multi-disciplinary degree program around this societal problem. Recruit the first undergraduate class (20 – 30 students) for the pilot degree program. Within 3-5 years, survey and analyze undergraduate student opinions and experiences and survey and analyze instructor opinions and experiences.
- Document failures and unsuccessful high risk/high reward activities. Compare year to year.