

# STRATEGIC PLAN

2021



DISCOVERY BEGINS HERE



"If I have been able to see farther than others, it was because I stood on the shoulders of..."

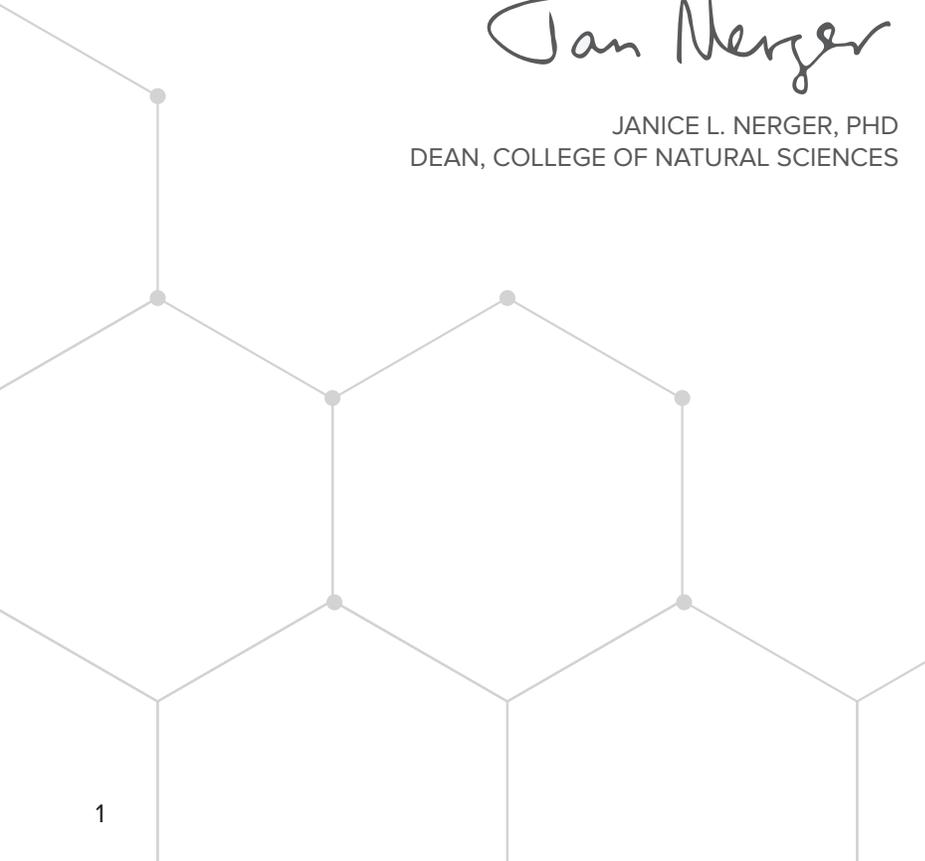


COLLEGE OF  
NATURAL SCIENCES  
COLORADO STATE UNIVERSITY



# DISCOVERY BEGINS HERE

THIS STRATEGIC PLAN, "DISCOVERY BEGINS HERE," WILL GUIDE OUR THINKING AND INFORM OUR DECISIONS IN THE COLLEGE OF NATURAL SCIENCES THROUGH 2021. DISCOVERY FUELS OUR INTELLECTUAL DRIVE AS WE STRIVE TO EMBODY THE MISSION OF OUR LAND-GRANT HERITAGE AT COLORADO STATE UNIVERSITY. DISCOVERY IS AT THE FOREFRONT OF OUR MINDS AS WE CONTRIBUTE TO THE ADVANCEMENT OF SCIENTIFIC KNOWLEDGE AND PREPARE THE NEXT GENERATION OF EDUCATED CITIZENRY. DISCOVERY HELPS US CREATE IMPACT IN THE GLOBAL COMMUNITY THROUGH OUR OUTREACH AND ENGAGEMENT. JOIN US IN OUR COMMITMENT TO MAKE THE COLLEGE OF NATURAL SCIENCES AT COLORADO STATE UNIVERSITY ONE OF THE PREMIER COLLEGES OF SCIENCE IN THE NATION.



*Jan Nenger*

JANICE L. NERGER, PHD  
DEAN, COLLEGE OF NATURAL SCIENCES







## OUR MISSION

The mission of the College of Natural Sciences is to provide innovative programs of excellence in research, education, and public and professional service. We are guided by the principles of inclusiveness and integrity, and believe we are most productive and impactful when we operate with recognition, appreciation, and respect of our differences. The College is committed to providing a positive educational experience for each student, an environment of personal growth and achievement for each employee, significant new knowledge within the scientific community, and advancement of scientific and mathematical literacy among all citizens.

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## OUR VISION

### DISCOVERY BEGINS HERE

The College of Natural Sciences will be a nationally recognized leader in scholarship, education, and discovery in the sciences. Through cutting-edge foundational and vital interdisciplinary research, the College will educate and inspire the next generation of scholars, researchers, and professional leaders to thrive and contribute to an ever-changing global society.



# OUR SHARED VALUES

The College of Natural Sciences aspires to be a transformative college with an enrollment of nearly 5,000 undergraduate and graduate students. It will maintain a reputation for high standards of academic excellence, foundational and translational research, and creative implementation of its strategies. The College will be known as a community of scholars who are guided by shared values of:

**ACADEMIC AND RESEARCH EXCELLENCE**

**DIVERSITY AND INCLUSION**

**COLLABORATION AND PARTNERSHIP**

**INTEGRITY AND COLLEGIALITY**

**SOCIAL RESPONSIBILITY AND ACCOUNTABILITY**

# OUR GOALS

- 1 INCLUSIVE COMMUNITY**
- 2 STUDENT SUCCESS**
- 3 RESEARCH EXCELLENCE**
- 4 FACULTY EXCELLENCE**
- 5 GLOBAL IMPACT**



# GOAL 1



## STRATEGIC OBJECTIVES

- 1.1 Encourage mutual support and recognition among employees and students at all levels
- 1.2 Build a diverse community of scholars and promote excellence and equity
- 1.3 Include broad participation in College and departmental decision-making processes
- 1.4 Foster the academic, personal, and professional growth of all members of the College community



# INCLUSIVE COMMUNITY

The College will be a strong, diverse, and cohesive community of students, faculty, staff, alumni, and friends committed to excellence in the sciences.

In the College of Natural Sciences, we value diversity of background as well as diversity of perspective by embracing a wide, inclusive definition of diversity, including: culture, ideas and approaches, ethnicity, gender identity and expression, geographic background, national origin, and religious and spiritual beliefs. We recognize our role as part of a broad community, and inclusive excellence requires a comprehensive approach and a long-term commitment. With this in mind, the College embraces Colorado State University's diversity statement and strives to adhere to its four key ideals: 1) broad and inclusive definition of diversity, 2) inclusiveness and excellence are interdependent, 3) everyone is responsible for inclusive excellence, and 4) inclusive excellence goes beyond numbers. The productivity and impact of the College is at its best when we operate with a spirit of respect, understanding, and inclusion. We strive each day to fulfill these ideals.

All employees of the College (faculty, staff, students) play an essential role in the success of the College and are the creative engine that drives this University. Our success is strengthened by mutual respect and civility. It is particularly important that the College leadership recognize the individual talents of its people and encourage collaboration within and outside of the College. Successful collaboration also includes engaging our alumni, friends, retired staff, and emeritus faculty. The College must be clear about its expectations, publicly recognize and value contributions, and embrace broad inclusion of many people in the decision-making processes. The College is committed to excellence and innovation in research, teaching, and outreach, and to incorporating diversity into every level of its strategic planning.



## STUDENT SUCCESS

**The College will maintain rigorous academic programs that offer a balance of fundamental skills, critical thinking, and experiential learning opportunities for students at the undergraduate and graduate levels.**

The College strives for excellence in education at all levels. It offers students opportunities for intellectual growth and career preparation with the goal of providing every student with a positive educational experience in our classes and programs. The College emphasizes undergraduate research and internship experiences that maximize student engagement and employment opportunities. At the graduate level, the focus is on effective mentoring towards research-based degrees. It seeks to provide outstanding and rigorous undergraduate and graduate training in the biological, behavioral, physical, and mathematical sciences with a creative blend of traditional, laboratory, online, and hybrid courses.

The College is committed to contributing to an informed citizenry and, in particular, to producing the next generation of scientists and high-school science and mathematics teachers for the State of Colorado. Undergraduate and graduate majors are expected to be engaged learners and to be educated broadly across all areas of science and mathematics, as well as within their particular discipline. The College is dedicated to increasing gender and ethnic diversity in each of the departments. To meet the needs of off-campus students, it has a growing commitment to provide a wide range of high quality online instruction. At the same time, the College is responsive to changing educational and societal needs and is implementing new approaches, including cross-disciplinary course clusters at the undergraduate level and unique online certificates and Professional Science Master's programs.

The College recognizes its central role in the delivery of the All University Core Curriculum and more generally in its support of the curricular needs for many programs across the campus. It accepts the challenge of providing quality education to large numbers of students, and it seeks to accommodate all students in the courses they need to graduate. It has an expectation that all course instructors will provide students with clear information on course content, grading procedures, classroom demeanor, policies regarding student collaboration, and mechanisms to provide course feedback.

The College places high value on networking among students and the benefits of engagement in the University culture. Its residential Learning Community believes in the “transformative power of connections” and provides a home for students to study with their colleagues and establish life-long friendships. The College also maintains strong student clubs in each of its departments and runs a variety of programs for career planning and student leadership development.



## STRATEGIC OBJECTIVES

- 2.1 Encourage continuous improvement in teaching and be seen as the University model for instructional innovation
- 2.2 Support development of new courses, certificates, concentrations, and degree programs at both the undergraduate and graduate levels
- 2.3 Increase mentored undergraduate research and internship opportunities
- 2.4 Increase variety of co-curricular offerings available to College students
- 2.5 Increase opportunities for international education and engagement



## GOAL 3



### STRATEGIC OBJECTIVES

- 3.1 Facilitate investments in new and established areas of high-impact research
- 3.2 Encourage research collaborations within CSU and through partnerships with other universities and laboratories worldwide
- 3.3 Support, enhance, and develop world-class research infrastructure
- 3.4 Encourage student success in research, with particular focus on increased Ph.D. production and development of career skills



## RESEARCH EXCELLENCE

**The College will build and strengthen basic and applied research programs with recognized excellence and global impact.**

The College considers discovery and application of basic and translational research to be the core mission of a research university and central to the land-grant mission of Colorado State University. Its focus is on building excellence in targeted, foundational research areas in each of its departments and supporting multidisciplinary collaborations. The College of Natural Sciences can best compete through focused scientific themes and creative interdisciplinary thrusts that complement existing and emerging areas of excellence in faculty research. The College has a particular interest in utilizing synergies across disciplinary lines to expand its research opportunities. Faculty hires, especially cluster hiring, is one strategy to achieve expertise in key areas. The College is aware that to be successful, it must focus its resources, set clear expectations for its faculty, and support increased visibility of its research in the larger community.

The College is committed to inclusion of all students in its research activities and encourages productive, mutually beneficial collaborations between faculty and students. It maintains high-quality Ph.D. programs in all disciplines and is heavily engaged in interdisciplinary graduate degree programs across the University. It will continue to provide incentives to encourage top-quality students in all fields to enroll in Ph.D. programs and successfully complete their degrees.

Quality research space is a university-wide challenge that must be met to maintain competitiveness and accommodate expansion in research. Appropriate research space, as well as teaching space, is particularly important for the many experimental, lab-intensive programs within the College. The College must therefore work in concert with the University to enhance the amount and quality of research space, and at the same time, assist the development of creative mechanisms for space reassignment to meet both growth and expansion into new research areas.



## FACULTY EXCELLENCE

**The College will develop and maintain a highly productive faculty to support its core mission areas of research, teaching, and outreach.**

The College strives to provide its faculty with an environment in which they can excel in their teaching and scholarship, including appropriate space, time, infrastructure, and incentives. The expectation is that all members of the faculty will contribute to the research, teaching, and outreach/engagement missions of the University. The College recognizes and expects faculty to contribute in different ways and that the balance among these activities may change throughout the course of their careers. Furthermore, the College acknowledges the value of non-traditional appointments, such as special faculty whose primary responsibilities are in teaching and advising or in research. The College is receptive to joint appointments, spousal accommodations, and other strategies to attract and retain the best candidates to the College and University. Similarly, the College is proactive in offering appropriate incentives to retain its most productive faculty. It will strive to implement new mechanisms for rewarding outstanding faculty and for continually assessing faculty performance as scholars and teachers.

For the past several years, the College leadership has worked to identify strengths within the College and to recruit faculty to build on those strengths. The College strives to increase the size, quality, and diversity of its faculty by building upon past investments, as well as pursuing new, strategic areas. Departments are expected to create and maintain long-term hiring plans that stress strategic investments. The College also prioritizes the development of future leadership and providing opportunities for those who choose such a path.



## STRATEGIC OBJECTIVES

- 4.1 Increase the size, quality, and diversity of faculty
- 4.2 Institutionalize departmental strategic and hiring plans
- 4.3 Provide clarity in productivity expectations of all faculty
- 4.4 Ensure faculty workload distributions are appropriately balanced for the success of the individual, the department, and the College



## GOAL 5



### STRATEGIC OBJECTIVES

- 5.1 Enhance external and internal communications to articulate the mission, vision, and accomplishments of the College
- 5.2 Cultivate relationships with business, industry, and government to develop and fund collaborative programs in the sciences and mathematics
- 5.3 Encourage and support outreach programs that increase engagement with the larger community and with K-12 students and teachers
- 5.4 Progressively increase fundraising goals to achieve greater capacity and impact



## GLOBAL IMPACT

**The College will increase its visibility, engagement, and outreach with campus, community, state, and national and international partners and stakeholders.**

Colorado State University has a commitment as the land-grant university of Colorado to serve the people and the state. The College has a responsibility to enhance the scientific and mathematical literacy of the general citizenry through a variety of engagement programs, including on-campus and distance-education courses, student internships, and assistance to groups and individuals in the land-grant tradition. As a key college in a mature research university, the College of Natural Sciences also has a broad responsibility to share its expertise nationally and internationally. Much of this expertise extends naturally to professional societies as well as to industrial, governmental, and economic partners external to Colorado State University. The College recognizes the importance of increasing its visibility and reputation locally and globally.

In response to national demands, the College offers unique undergraduate majors, such as zoology and neuroscience, and graduate programs, such as the first Professional Science Master's degree at CSU, which are of particular interest to non-resident students. It will seek to establish additional degree and certificate programs relevant to ever changing global needs. In addition, the College trains secondary and in-service teachers and seeks to inspire high school and community college students, particularly those at Alliance Partner schools, through programs within the Education & Outreach Center, the Little Shop of Physics, and the CSU STEM Center. Partnership with K-12 education – within and outside of Colorado – is a central part of the College's mission, and it is one that will be further developed and broadened in the coming years.

The success of the College is in part due to the success of its fundraising efforts. The College of Natural Sciences' Office of Development will continue to be a consistent and valued source of significant resources for the College. It will continually expand the number of relationships maintained with philanthropists and encourage these individuals and organizations to commit to greater levels of support for the College and its students and programs. The College will increase its investment in fundraising activities and encourage more participation by department chairs and faculty. The College expects the Development team to partner with University Advancement efforts and prioritize the objectives of the Capital Campaign for more effective fundraising and alumni relations.

## COLLEGE OF NATURAL SCIENCES

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CSU IS AN EQUAL ACCESS AND EQUAL OPPORTUNITY UNIVERSITY

# STATE YOUR PURPOSE

• THE CAMPAIGN FOR COLORADO STATE UNIVERSITY •



Colorado State University

