

College of Science and Health 2017-2018 Annual Report

Summary

In academic year 2017-2018, the College of Science and Health expanded opportunities for students through the generosity of donors, grant activity of faculty, and development of new degree programs. A \$2 million gift, recognized by the naming of the new science laboratory building as “*The Prairie Springs Science Center*”, will provide scholarships, research fellowships, and internships to students in environmental sciences. There was a 70% increase in external grant funding to faculty and a 60% increase in undergraduate research grant proposals to the Office of Undergraduate Research and Creativity. New majors have been approved or proposed within programs in Athletic Training, Computer Science, Therapeutic Recreation, Recreation Management, Health Care Administration, and Computer Engineering. Student learning was integrated into outreach to the local, regional, and international community through clinical experiences, course-related service learning activities, and study abroad. Sponsored formal seminars, including the 18th annual lecture by a Nobel Laureate in Physics, as well as informal seminars, such as the new *La Crosse Science Café*, engaged the general public with university activities. College-sponsored programs, including the First Year Research Exposure (FYRE), reduced equity gaps for first generation students and grant proposals to the National Science Foundation and the National Institutes of Health proposed to increase access for students from historically under-represented groups. Nine new faculty and instructional staff were recruited for academic year 2018-2019 to replace personnel who retired or resigned. College goals for the 2018-2019 academic year include the successful transition of teaching and research laboratories from Cowley Hall to the new Prairie Springs Science Center and the development of a strategic plan for the College.

Section 1: Success Stories

- The UWL Foundation received a \$2 million gift—the largest single gift ever to UWL—from Prairie Springs: The Paul Fleckenstein Trust. The endowment will be used to support students and programs in environmental studies and education, wildlife and habitat protection, conservation, and ecological technology. In recognition of this generous gift, the new science labs building was named “*The Prairie Springs Science Center*.” Additional opportunities for naming spaces within the building exist and additional gifts are anticipated.
- The collaborative, online M.S. degree program in Data Science, which is offered by UWL faculty in Mathematics & Statistics as well as faculty and five other UW campuses, was named the “2018 Outstanding Program” in the credit category by The University Professional and Continuing Education Association. The first of nearly 300 program participants received a degree through UWL in fall 2017.
- Faculty in CSH were awarded more than \$1.7 million in external grants. This is a 70% increase from AY 16-17. Thirty-one external grant proposals were submitted--an increase of 40% from the previous academic year. These grants provide research and other educational opportunities for undergraduate and graduate students within the college.
- Grant proposals from CSH undergraduates to the Office of Undergraduate Research & Creativity have increased 60% since AY 15-16, which reflects increased faculty-mentored research by our students.
- As a result of a collaboration among individuals from RMTR, HEHP, Sociology, and Psychology, UWL officially received the designation of *Age-Friendly University* by the Association of Gerontology in Higher Education.

Section 2: Programming

Update on New Programs/Initiatives

- Faculty Senate approved new programs in Athletic Training (MS degree—replaces BS degree), Computer Science: Embedded Systems (BS), Therapeutic Recreation (BS/MS dual degree), and Recreation Management (MS—Professional Development Option; this is an online program).
- Faculty Senate accepted the proposal for graduate degree in Health Care Administration, a collaborative online program offered by six UW campuses (Eau Claire, La Crosse, Parkside, Platteville, Stevens Point, and Stout).
- A Notice of Intent (NOI) was submitted to UW System for developing an undergraduate degree program in Computer Engineering.
- A new, multidisciplinary minor in Neuroscience was approved by Faculty Senate and will begin fall 2018.

Changes to Existing Programs/Initiatives

- Faculty Senate accepted the following CSH Departments/Programs Academic Program Review (APR) Reports during 2017-2018: **Undergraduate:** Biology, School Health Education; **Graduate:** Biology, Human Performance, Occupational Therapy, Physical Education Teacher Education, and Therapeutic Recreation.
- Dual degree program in Physics and Engineering: A new agreement was established with UW-Stout. The agreement with the UW-Madison College of Engineering, which had been previously suspended, has been re-activated.
- The undergraduate degree program in Radiation Therapy was accredited for eight years (maximum possible) by the Joint Review Committee on Education in Radiologic Technology.
- The Physician Assistant program increased its cohort from 19 to 25 students and will eventually reach 31 students as a result of a new agreement for clinical affiliation with Marshfield Clinic.
- CSH has implemented an “Assurance of Progress to Degree After 60 Credits Policy”. Students must have a declared academic major after the completion of 60 credits. For programs requiring an application for admission, students must be admitted to that program or have a qualifying second major after the completion of 60 credits. Students who do not meet this requirement will (1) have an advising hold placed on their registration for the next semester; (2) be required to make an appointment with staff in the College of Science and Health Academic Services Office to discuss plans for degree completion and to request removal of the advising hold.

Section 3: Educational Enhancements

- Service learning activities involved over 800 students programs in Health Professions (HP) participating in health and wellness clinics, health screenings, course-related clinical experiences, inter-professional education or research. Faculty-mentored OT and PT students have served over 100 clients through the OT adult and pediatric clinics and the PT program's Exercise Program for Program for People with Neurological Disorders (EXPAND). Inter-professional programs involving Viterbo University and the Go Baby Go project continue to bring students together for unique learning activities from different HP programs.
- As part of the course requirement in PHY 106, students create and conduct physics demonstrations at the La Crosse Children's Museum
- Based on recommendations of the Pre-Health Taskforce, the two pre-health advisors (Stindt and Stein) in the CSH Advising Office are being transferred to Academic Advising Center & Career Services and will become part of the a new Pre-Health Advising Resource Center.
- CSH is collaborating with Superior Fresh, a startup aquaponics facility near Northfield, Wisconsin. More than a dozen faculty and their students are conducting studies in class and independently in a variety of areas, including testing food and environmental samples from the facility for pathogens to assist with the company's food safety standards and evaluating the utility of select nutrients in enhancing the growth of hydroponically cultured lettuce. One UWL alum has been hired through the collaboration.
- Individual faculty, including Nadia Carmosini (Chemistry & Biochemistry) in her course in Environmental Chemistry, have added community-based research modules as course components.
- Faculty in Biology and Geography & Earth Science undertook field work with students in the Spanish Virgin Islands, Belize, Kenya, and Nepal and offered courses in Ireland.

Section 4: Staffing, Resources and Facilities**Overview of Staffing and Consequent Changes**

- In AY 17-18, CSH conducted searches for 13 faculty, instructional and non-instructional academic staff positions. Of these, four positions remain unfilled and recruitment efforts will continue in AY 18-19. Six faculty and instructional staff retired, resigned, or took new internal positions at the end of the year.
- In AY 18-19, CSH anticipates recruiting 13 new faculty and instructional academic staff for AY 19-20. This includes two new positions in Computer Engineering supported by outcomes-based funding from UW System and one position in Biology funded by GPR Lapse return from UWS.
- We anticipate continuing difficulties in hiring faculty and staff in Health Professions. These challenges are the result of low starting salaries and credential requirements by external accreditation agencies (e.g., faculty member must have a DPT and a Ph.D. or E.D.D.)
- In fall 2017, CSH initiated a voluntary interdepartmental peer-mentoring program for new faculty and instructional academic staff. Four new faculty and one recently hired faculty member accepted the invitation to request a mentor and resources were provided for mentors and mentees.

Status of Resources and Facilities: Changes, Challenges, Development

- The Prairie Springs Science Center will relieve issues associated with overcrowded and inadequate laboratory facilities in Cowley Hall. However, it will also pose additional challenges in obtaining resources necessary to meet expected and unexpected expenses associated with the new building. For example, placement of the Nuclear Magnetic Resonance Spectrometer (NMR) near physics research laboratories in the building's basement may require the purchase of expensive materials to shield sensitive instrumentation from magnetic radiation.
- As a result of static 102 and 131 budgets, the inability to carry over funds between fiscal years, and minimal return of indirect funds to the College, CSH will struggle to continue highly successive programs such as the Dean's Distinguished Fellowships. The College has only annually fluctuating levels of salary savings to meet unanticipated expenditures (e.g., equipment repair) and the ability to creatively provide new opportunities for faculty, staff, and students is limited.

Section 5: Community Engagement

- The Department of Health Education and Health Promotion conducted the third annual *Health for Generations Camp* in July 2017. A goal of this camp is to promote health careers and to introduce Native American students interested in a health to a college campus. In partnership with La Crosse Health Science Academy and Gundersen Health System, students from Pine Ridge, South Dakota participated in the camp.
- Faculty in Chemistry and Biochemistry have organized the *La Crosse Science Café* -- regular non-technical science presentations to the public held on Saturday evenings at JavaVino. Since its inception in fall 2017, several CSH faculty, as well as scientists from Winona State University and UW-Madison, have presented on diverse topics including invasive species, chemotherapy, organ transplants and forensic anthropology.
- CSH sponsored seminars that were open to and very well attended by the general public. The notable speakers included:
 - James Gates, National Medal of Science Laureate, whose visit was funded by the Visiting Scholar of Color program.
 - J. Michael Kosterlitz, co-winner of the 2016 Nobel Prize in Physics.
 - Cliff Young, this year's Distinguished Lecturer in Computer Science
 - Steve Carpenter, this year's Distinguished Lecturer in Life Sciences
 - Shahid Naeem, this year's Warner Memorial Lecturer
 - William Sutton, this year's Distinguished Scholar in Exercise and Sports Science

Section 6: Equity and Diversity

Improving Access

- College faculty and staff members, with individuals from Western Technical College, initiated work on a National Institutes of Health Bridges to the Baccalaureate (B2B) grant proposal for submission in September 2018. This program builds inter-institutional collaborations to enhance the successful transition of students interested in careers in the health professions from community college to a 4-year baccalaureate university.
- CSH faculty and decanal staff re-submitted an S-STEM grant proposal to the National Science Foundation. The S-STEM grant provides scholarships to economically challenged 1st generation and students of color pursuing a STEM major. If funded, it would assist 119 students with scholarships and research opportunities over 4 years (\$971,500 requested).

Closing Equity Gaps

- The UWL Ronald E. McNair Post-baccalaureate program was funded for an additional 5 years by the US Department of Education (\$1,158,640). Eleven of 13 graduating scholars were accepted into graduate programs for fall 2018.
- The 2017-2018 F.Y.R.E. cohort represented the program's 7th group of participants. Of the students in the cohort, 92% and 83% received ABC grades in Bio 105 and in their introductory math course.
- CSH worked with the Offices of Multicultural Student Services, Financial Aid, and Graduate Studies to redesign the UW-System's Advanced Opportunity Program as a recruitment tool to attract underrepresented graduate students to UWL. CSH awarded four \$10,000 scholarships to new graduate students entering fall 2018. In addition, CSH awarded five Graduate Assistantships in three departments to students from historically underrepresented groups.

Improving campus climate

- CSH provided guidance to students interested in forming Diversity in STEM organization (DiSTEM).
- All CSH departments now have one or more representatives serving as Equity Liaisons. Through this program, the College Office is working closely with CATL and IRAP to develop strategies for increasing academic success for all students.

Section 7: Plans, Challenges, & Opportunities

- A major focus for late summer and fall 2018 will be moving teaching and research laboratories from Cowley Hall into the new Prairie Springs Science Center. The move into the new facility will include the purchase and installation of approximately \$1.5 million in new equipment and supplies to support educational activities for students in teaching laboratories.
- It has been approximately 15 years since CSH undertook strategic planning. Under leadership provided by Robert Allen, CSH will initiate the development of a strategic plan within the context of the University's strategic plan.
- The new Prairie Springs Science Center presents a unique opportunity to attract additional students to the College and the University. This may also place additional demand on existing majors and courses within CSH. Planning to meet the needs of a potential increased number of students is ongoing.
- Phase I of the Prairie Springs Science Center will alleviate demands for teaching and research laboratory space. Phase II is still needed to replace outdated classrooms in Cowley Hall and a shortage of offices for college faculty and staff (many which are housed in temporary offices in Cartwright Center). The College will continue to advocate for Phase II of the project.