

11 July 2016

To: Betsy Morgan
Interim Provost and Vice Chancellor for Academic Affairs

From: Bruce Riley
Retired Dean, College of Science and Health

Re: AY2015-2016 SAH Year-End Report

There was much to celebrate in the College of Science and Health. The following (first seven pages) is my summary of selected activities in SAH; more information and more detailed information is presented in the attached departmental year-end summaries for AY2015-2016.

Section 1: Success Stories.

This year I wish to highlight/point you towards the professional and community engagement activities of SAH faculty and staff that enhance the educational experiences of our students. These activities include:

Service learning activities that provide field and research experiences for our students; for example, ESS, HEHP, HP, and RMTR programs include student service/community engagement activities in the areas of fitness, health and wellness, rehabilitation, and recreation in community and business organizations as well as in senior and assisted living facilities. Examples of on-campus service programs include the La Crosse Exercise and Health Program (LEHP) which provides adult fitness and cardiac rehabilitation exercise programs to community members and are medically supervised and staffed by ESS faculty and students; the Exercise Program for Adults with Neurologic Disorders (EXPAND) which is a program that links Physical Therapy Education with a community need to provide adults with neurological disorders a place to learn how to maximize their health and wellness; and the free OT Adult and Pediatric Laboratories in which OT students develop and implement, under faculty supervision, treatment plans for individuals who are not eligible for therapy services by other providers.

SAH faculty obtained more than \$2.8 M in new external grant and contract funding to support educational and research projects (that include student researchers). These funds include U.S. Department Education support for ESS's Adapted Physical Education program, NSF support for an REU in Mathematical Ecology, WiscAMP/NSF support for a summer undergraduate research program intended to increase retention and graduation of under-represented students in STEM fields, a U.S. Department of Interior contract, a Minnesota state contract and a Wisconsin Sea Grant Institute grant for research studies of methylmercury in rivers and wetlands in Minnesota and Wisconsin, WiSys support for a

research study of Highland Cranberry anti-viral properties, and a NIH support for research studies on aging, in particular, on how oxidation, part of the aging process, affects the molecular mechanisms that power muscles.

The strength of the college's academic programs and the quality of the scholarship being done by members of the college is being recognized by external entities via conferences being awarded to/asked to be hosted by UW-La Crosse:

- Biology/aquatic science faculty cohosted the biennial conference of the International Society for River Science in August 2015;
- The Geography and Earth Science Department cohosted the first Upper Midwest Geospacial Conference in May 2016;
- Mathematics faculty cohosted
 - The Annual meeting of the Wisconsin Section of the Mathematics Association of America in April 2016;
 - The 2016 Midwest Numerical Analysis Day Conference in April 2016;
 - The Second Biennial Midwest Mathematical Biology Conference in May 2016;
 - The Conference on Research and Innovation in Teaching Mathematics with Technology in July 2016;
- The Microbiology Department cohosted
 - The Third Annual Joint University of Wisconsin-Madison and University of Minnesota-Twin Cities Virology Symposium in September 2015;
 - The North Central Branch of the American Society for Microbiology Meeting in October 2015;
- Physics faculty cohosted the Wisconsin Association of Physics Teachers Annual Meeting in October 2015.

These conferences provide wonderful opportunities for our students to participate in professional meetings and to interact with prominent regional, national, and international scholars.

Section 2: Programming and Students.

Programming. Their respective accreditation bodies reaccredited the graduate Occupational Therapy program and the undergraduate Athletic Training, Recreation Management, and Therapeutic Recreation programs. Several programs, Medical Dosimetry, Physical Education Teacher Education (PETE), and Sport Management, completed their academic program reviews. There were no serious areas to address, but for some of the programs the reviews resulted in recommendations for the departments/programs to consider/address; the college will assist in these efforts as appropriate. Four additional programs, Exercise Science, Geography and Earth Science, Microbiology, and Physical Education Teaching-Graduate, have submitted their program review materials to the APR Committee for review completion in early fall 2016.

Regarding new programs, the new UWS collaborative online Data Science MS program is off to a good start with a first class of approximately 80 students (10 enrolled through UWL). The UWL Mathematics and Statistics Department provides statistics courses to the program. The Microbiology MS program was approved by UWS and the Mathematics and Statistics Department receive authorization to plan an Applied Statistics MS degree program. Finally, the Computer Science Department is putting into place the components (e.g., faculty and curriculum) for their computer-engineering program.

As is normal, departments carried-out curriculum review/update projects in AY2015-2016 and plan to carryout reviews/updates in the future (as described in the departmental summaries). One of the projects to monitor is the review/revision of the School Health Education (SHE) program to address declining enrollment and other issues. Indeed, since the PETE program is trying to address the same issues and since it is natural for students to seek teaching certification in both programs, the SHE and PETE faculty are encourage to work together to develop a streamlined program that meets the needs of these students and the requirements of DPI.

Another development to closely monitor involves an issue associated with the success of the secondary science education programs:

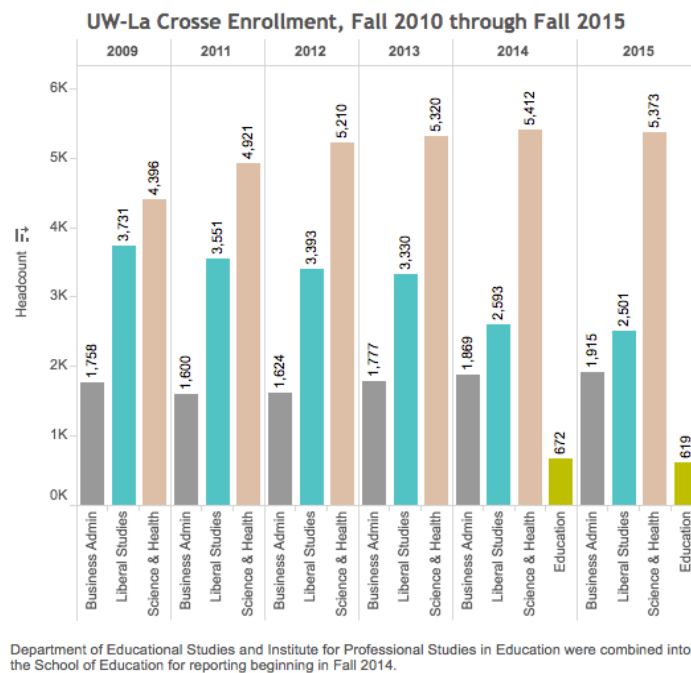
The development and maintenance of robust mathematics and science education programs is a long-term strategic priority of SAH. The college has invested and continues to invest significant resources (personnel, facilities, equipment, and S&E) in these education programs, including eliminating an associate dean position and using the associated funding to create two science (biology and physics) education faculty positions and, recently, eliminating an ADA position and using the associated funding to help reconstitute a chemistry education faculty position that was lost following a resignation and a reduction of GQA instructional positions. With UWL's superior mathematics and science content programs and the hire of outstanding mathematics and science educators it naturally would follow that the mathematics education program has developed into one of the best in Wisconsin and the science education program is approaching that stature.

Student interest in the programs is growing, and UWL is one of the few UW institutions where the numbers of mathematics and science education graduates are growing. This is occurring during a time when high school mathematics and science teachers are in high demand in the state of Wisconsin. School districts know our mathematics and science educators and the quality of our education programs; districts want our secondary mathematics and science students both for hire as new teachers and as student teachers.

One issue facing this growth is limiting number of students admitted to the secondary science education programs because of a perceived shortage of field and student teaching placements sites for these students. I note that some of these placement sites are often used for both secondary education and middle level education students, and the sites can accommodate a fixed number of students each term. While there has

been some conversation of limiting the number of secondary science education students in their field placement courses, there has been no talk, to my knowledge, about limiting the number of students in the middle level education program. UWL is in a better position to increase the number of well-prepared secondary science education graduates (which Wisconsin needs) than other UW institutions. At the same time, UWL's middle level education program is similar to programs at other institutions and there is not the same statewide demand for middle level teachers. I think a strong priority for the SOE should be to focus on this issue. In the meantime, to provide some relief for this issue, additional science education field/student teaching placement sites are continuing to be developed by science education faculty, albeit the new sites are located at a greater distance from UWL than current placement locations.

Students. SAH has strong, well-recognized, academic programs that continue to attract a larger proportion of UW-La Crosse students as displayed in fall enrollment data, showing nearly 52% of the fall 2015 students at UW-La Crosse are enrolled in SAH programs.



For AY2016-2017, over 57% of incoming freshmen are interested in SAH programs.

Freshmen Registered for AY2016-2017

First Registered Term	CBA	CLS	SAC	SOE	SAH	TOTAL
Summer 2016	9	8	1	1	43	62
Fall 2016	360	348	62	91	1138	1999
TOTAL	369	356	63	92	1181	2061

A number of SAH students are pre-professional (pre-allied health and pre-medicine) students that place high demand on general biology, general chemistry, general physics, foundational mathematics and statistics, human anatomy and physiology, and genetics courses. Monitoring and responding to these demands as well as to a shifting mix of students (for example, the increase in exercise science pre-professional and decrease in PETE majors in ESS, the increase in community health education and decrease in SHE majors in HEHP, the increase in therapeutic recreation majors in RMTR, and the increase in computer science majors) are a priority of academic departments and the college.

Section 3: Staffing, Resources, and Facilities.

College Staffing. Ten tenure-track faculty and eighteen instructional academic staff members joined the college in August 2015.

- The new staff increased departmental expertise in targeted areas of study, and provided several departments with opportunities to offer additional sections of high demand courses and laboratories.
- Based on first year reviews, the new faculty did quite well in the areas of teaching and scholarship during their first year at UW-La Crosse.

During the year, eight faculty and six instructional academic staff members were hired to begin in AY2016-2017. These new hires fill consequential needs in the college including the areas of biomechanics, clinical laboratory science, computer science and engineering, physical education, occupational therapy, physical therapy, recreation management, sport administration, and therapeutic recreation. There is still one instructional academic staff position search in the area of therapeutic recreation underway with hopes of filling the position this summer. There were five failed searches during the year.

In AY2015-16, low student enrollment resulted in the loss of 6 GQA instructional positions. After revising the funding for open positions, a faculty position in biology, an IAS position in chemistry, 2 faculty positions in mathematics, and a faculty position in each of the areas of therapeutic recreation and recreation management were all lost. The first five positions are in areas of very high student demand (for courses and programs).

Also in AY2015-2016, there was one retirement in Mathematics and two retirements in the Occupational Therapy Program (both were replaced for AY2016-17). There were two resignations in the Computer Science Department (one was replaced for AY2016-2017), and one resignation in each of the Chemistry and Microbiology Departments and in the Physical Education Teacher Education and Therapeutic Recreation Programs (it is hoped that the TR position will be filled this summer). The college also lost a beloved long-time Biology faculty member to cancer.

During AY2016-2017, the college plans to search for eleven-twelve (ten tenure-track faculty and one-two IAS) positions. Thus, faculty recruitment will be a major activity in the college during the next academic year.

College Finances/Supplies and Expenses/Facilities. The college was able to invest one-time salary savings and indirect cost reimbursement dollars to meet needs in the college, including:

- Provide supplemental S&E help to several departments;
- Replace and upgrade equipment used in teaching laboratories (much of this equipment will also be used for faculty and student research projects, and is often referred to as institutional resources available to grant proposal projects);
- Fund small classroom/laboratory modernization projects;
- Supplemental travel and professional development funding for faculty and staff; and
- Matching funds for grant proposals.

The construction of the “Anatomy Annex” and the hire of additional anatomy faculty and staff members allowed the Biology Department to schedule enough additional laboratory sections of BIO 312, 313 Human Anatomy and Physiology (6-8 additional sections per semester) to meet student demand for the courses.

The faculty members participated in the final stages of the design process for the first phase of the Cowley Hall/New Science Building Project and, as expected, everyone is looking forward to the construction of the new science laboratory building (beginning in August). The design process for the second phase of the project (office and classroom addition) is expected to start in the next year or two.

Some renovation work in research laboratories in Mitchell Hall was done. Additional, planning/renovations will be required to accommodate the increased research activity of faculty and students.

Section 4: Outreach Activities.

SAH faculty and student community engagement focus on health and wellness programming, service programs in the areas of adult fitness/cardiac rehabilitation and motor development, adventure education, mathematics and science education enhancement programming, and recreational programming on campus and in community and business organizations, public schools, and senior and assisted living facilities. SAH departments sponsored special events, distinguished lecture series, and symposia in all the areas of science and health that are open to students and adults from the La Crosse region.

Inclusive Excellence. SAH faculty and staff members were engaged in activities consistent with the goals of inclusive excellence (improving access, closing equity gaps, and improving campus climate), for example:

- Faculty members are involved in mentoring minority students in the FYRE, McNair, and WiscAMP programs;

- Faculty members taught for the Academic Success Institute (ASI), the objective of this program is to help multicultural students make a successful transition from high school to college;
- Mathematics faculty members ran the FastTrack program, designed to give incoming freshmen the opportunity to move ahead in their required mathematics coursework and provide support as the students enroll in their first college mathematics course – one of the original goals of FastTrack was to strengthen the retention and graduation of multicultural and low-income students, and STEM majors (admission into the program is partially based on these categories);
- The Health Education and Health Promotion department co-sponsored the Scenic Rivers Area Health Education Center's Native American Students Health Careers Summer Camp;
- SAH faculty members participated in underrepresented minority student recruitment programs in collaboration with the Admissions Office and with their professional organizations;
- SAH faculty members were actively involved in women in science programs on campus and at the state level;
- College staff participated in (and the college office supported) supplemental instruction programs for STEM courses in collaboration with Multicultural Student Services; and
- Inclusive excellence topics and speakers were incorporated into courses and seminars, and academic programs offered service-learning opportunities that address issues of vulnerable populations.

International. SAH faculty international activities include presenting research results at international conferences and universities, and engaged in collaborative research with international scholars both abroad and on campus (for example, the Exercise and Sport Science, Geography and Earth Science, and Health Professions Departments hosted visiting international scholars during AY2015-2016).

SAH faculty/departments also offered international academic programs, including:

- The Computer Science department continues to develop MSE contract programs for international students;
- Recreation management faculty led an ecotourism program to Australia and New Zealand;
- Clinical exercise physiology faculty members taught coursework in the Netherlands;
- The Biology faculty members led an international study/field work trip to Belize;
- A Geography and Earth Science faculty member led an international study trip to Tanzania; and
- The Physical Therapy program offered an international service (providing PT services) trip Guatemala.

BRIEF SUMMARY OF ANNUAL ACTIVITIES
DEPARTMENT OF BIOLOGY
(June 1, 2015 - May 31, 2016)

Section 1: Success Stories

Glenn Brice received the 2016 UWL Student-Athlete Nominated Faculty of the Year Award. Jennifer Miskowski was also nominated for the award.

Roger Haro was recognized as the 2015 Wisconsin Professor of the Year by the Carnegie Foundation and the Council for Advancement and Support of Education.

Gretchen Gerrish's research on marine ostracods was featured in a BBC documentary titled "Life that Glows". This may be a useful public relations opportunity to highlight research by university faculty.

Amanda Walsh won an award for best poster at the Seven Rivers Undergraduate Research Symposium held at Viterbo University.

Ten graduating seniors were named as recipients of the department's "Senior of the Year" award: Danielle VanBrabant, Kelsey Miller, Alisha Saley, Carly Olson, Megan Hess, Ellen Arndt, Jonathan Lendrum, John Frawley, Sarah Lloyd, and Dylan Montoure.

Section 2: Programming and Students (Mike)

We increased the diversity of the biology major by adding a concentration in plant and fungal biology. In addition to taking the biology core, students select electives from such courses as mycology, medical mycology, plant-microbe interactions, plant ecology, plant physiology, and plant taxonomy. The addition of the plant and fungal concentration brings the number of different biology concentrations to five (Biomedical Science, Cell and Molecular, Aquatic Science, Environmental Science, and Plant and Fungal Biology).

BIO 100 has replaced BIO 103 as a general education course for non-science majors. BIO 100 is more suited to non-majors in terms of developing biological literacy and the ability to analyze and interpret biology-related news while maintaining core biological content.

Biology faculty applied for and were awarded a grant to examine quantitative skills across the biology curriculum. Students do not perform up to expectations on our quantitative skills assessment tool, so we are looking at ways to improve their acquisition and retention of skills in this area.

We assessed Departmental SLOs 4 and 6 this year in our capstone course. Results were mixed, illuminating areas for future improvement.

Section 3: Staffing, Resources, and Facilities

We welcomed one new tenure-track faculty member, Christine Schwartz, whose primary teaching responsibility is anatomy & physiology. In addition, three new instructional academic staff, James Schanandore and Ryan Stapley, joined the department to coordinate and teach laboratories in human anatomy & physiology (BIO 312, 313) and to replace Kerrie Hoar, who retired from UWL in May 2016. We attempted to hire (1) a tenure-track assistant professor in genetics to replace Rob Tyser, who retired in May 2015, and (2) an associate lecturer/lecturer to teach ecology (BIO 307) and ichthyology (BIO 422) as a replacement for Mark Sandheinrich while he serves as interim dean for two year. Both of these searches failed and will be re-initiated in fall 2016. In addition, due to the death of David Howard in February 2016, we will be initiating a search in fall 2016 for a cell biologist.

Anne Galbraith completed a one-semester sabbatical in spring 2016. Jennifer Miskowski and Sumei Liu were awarded one-semester sabbaticals for the fall 2016 and spring 2016, respectively.

Gretchen Gerrish, Barret Klein, and Jennifer Klein were recommended for promotion to Associate Professor by JPC; Gregory Sandland and Eric Strauss were recommend for promotion to Full Professor. Faye Ellis was recommended for promotion to Senior Lecturer. Gretchen Gerrish was also recommended for retention and tenure.

Faculty and staff maintained their scholarly productivity and active engagement in undergraduate and graduate research education. They submitted more than 23 educational, research, and service grants during AY 2015-2016; new funding from external grants exceeded \$886,000. Biology faculty authored 24 peer-reviewed publications or book chapters with several publications focused on SOTL. In addition, faculty and staff, along with undergraduate or graduate co-authors, made more than 77 presentations at regional, national, and international science conferences.

Departmental facilities improved with the addition of the “lab annex” for BIO 312/313 lab instruction and the addition of staff (see above) to increase the number of sections of BIO 312/313 that we can offer. The space and staff additions resulted in all eligible students that requested the courses being admitted to BIO312/313 for the first time in at least the last seven years.

Section 4: Outreach Activities (Mark)

Aquatic science faculty (Haro, Sandheinrich, Strauss) served on the program and local arrangement committees and hosted the biennial conference of the International Society for River Science at the La Crosse Center August 23-27, 2015. More than 300 national and international scientists from the physical, natural, and socio-economic sciences attended the conference. In addition to the technical program, there were public outreach activities on Sunday, August 23, including a tour of a working Mississippi River towboat, interactive and informational exhibits in Riverside Park by natural resource agencies, and an evening presentation by Chad Pregracke, the 2013 CNN Hero of the Year and speaker sponsored by the National Geographic Society

The Department hosted Dr. Nancy Moran, an evolutionary biologist and the University of Texas Leslie Surginer Endowed Professor. In April, she presented the second annual Warner Memorial Lecture, which was open to the campus and public community. The Department also supported the visit of Dr. Richard Lenski as the Distinguished Speaker in the Life Sciences in March of 2016.

Section 5: Plans, Focus, Challenges, and Opportunities for 2015-2016.

Plans for the coming year include increasing student awareness of the Biology education major and the plant and fungal biology concentration. Also, the department will host external reviewers as part of the APR process in the fall of 2016. Progress on comprehensive assessment plans were delayed by the death of Dr. David Howard, our departmental assessment coordinator. These duties will be assigned to the incoming associate chair, Dr. Peg Maher.

We face significant challenges in hiring and retaining well-qualified faculty and staff, with the failure of two searches in 2015-2016. Salary, benefits, and the educational climate in the state were factors in the failure of the searches. We have three opportunities in 2016-2017 to hire additional staff-- a cell biologist, a geneticist, and an aquatic ecologist. The department hopes for more success in hiring this year.

Another opportunity comes with the impending construction of the new science lab building on campus. Dr. Mike Abler will keep the department abreast of developments regarding the building and keep the builders aware of departmental needs.

SUMMARY OF ANNUAL ACTIVITIES DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY (June 1, 2015 - May 31, 2016)

Section 1: Success Stories

Several department members received awards this year, mostly for teaching. Thirteen dept members were nominated for the Eagle Teaching Excellence Award, and one of these, newer faculty member **Nick McGrath**, was selected. Three chemists received awards from the Regional ACS section—**Sandra Koster** for outreach and service, **Heather Schenck** for teaching, and **Nick McGrath** for research. Four faculty members received UWL Faculty Research grants (**Gorres, Grilley, May, Weaver**) and two received UW-System/ARG-WiTAG research grants (**McGaff & Opdahl**). We received a generous endowment from the Chan family to establish two new scholarships and two summer undergraduate research fellowships. Our ACS-Student Affiliate chapter (“chem club”) advised by **Basu Bhattacharyya** and **Nadia Carmosini**, was recognized nationally with an Honorable Mention award for the second year in a row.

Section 2: Students and Programming

The Department is externally reviewed and certified by the American Chemical Society-Committee on Professional Training (ACS-CPT). This body recently adopted a new set of “2014 Revisions to the Baccalaureate Program in Chemistry” that has caused us to further refine our curriculum to meet the ACS-Certified B.S. degree that we offer. Namely, coverage of polymer chemistry/macromolecule content is now required in our curriculum. The report for our six-year, “2016 Periodic Review” for re-accreditation by the ACS-CPT was due June 1, 2016, and that was successfully submitted. The ACS-CPT “Annual Report” is due July 1, 2016. We expect to begin our UWL APR reporting process at some point over the next AY, but will likely not to hear back from the ACS-CPT reviewers until Spring 2017.

Faculty members collectively mentored approximately **50** undergraduates in independent research projects and co-advised **7** MS degree candidates (from BIO and MIC). The department awarded approximately **\$30k** in scholarships to its majors. We continued a fourth year of our Visiting Seminar Speaker series that brings approximately one chemist to campus each month using Foundation funds. These are well received and attended by our majors, minors, and faculty members.

Section 3: Staffing, Resources, and Facilities

We welcomed two new faculty members, **Drs. Kelly Gorres** (GQA) and **John May** (GQA), both biochemists, and both had a very productive first year. We also welcomed one new IAS member, **Dr. Joshua Neukom** (102), an organic chemist. Additionally, **Drs. Anna George** and **Yevgeniya “Eugenia” Turov** were on maternity leaves in the fall and spring semesters, respectively. Temporary IAS hires, **Dr. Laura Herder**, **Mr. Ben Haenni**, and **Dr. Valeria Stepanova** helped with course coverage for these, two sabbaticals (**Bryan** (fall) and **Beyer** (spring)), and various faculty 50-100% reassignments from teaching (**Monte, Grunwald, Loh, Miller**).

We began a search for a new IAS position (GQA) but cancelled this and lost the position due to first round budget cuts in the fall. **Anna George** announced her resignation, effective August 2016, and we lost that faculty line as well, only to have it restored late in the AY. **Prof Bruce Osterby** announced his retirement, effective May 2017. Early in the fall of 2016 we will begin two faculty searches for their replacements.

One successful promotion portfolio was advanced for **Heather Schenck** (to Professor).

Scholarly activity and success continues to be strong. Department members and their students made **18** scholarly presentations at a range of professional conferences. Chemists collectively published **9** peer-reviewed manuscripts and **1** provisional patent application. Numerous peer reviews of manuscripts and grant proposals were completed.

A number of department members were busy prioritizing needs, obtaining quotes, making purchases, setting up new instruments and equipment, and learning to use these items as a result of two rounds generous “one-time funding” for “major purchases.” Approximately **\$140k** in acquisitions this year helped to modernize our teaching and research infrastructure and enhance inter-departmental collaborations. We purchased service contracts for a handful of our most expensive shared instrumentation. We studied and made a number of safety equipment upgrades to the fourth floor of Cowley Hall.

Section 4: Outreach Activities

In addition to normal teaching loads, several faculty members hosted special outreach teaching workshops for primary and secondary schools, which include the Young Scholars, Mississippi Valley Gifted and Talented Network, and Girls in Science programs. Demonstrations were delivered in several local schools, and we also put on these “Chemistry Magic” shows for busloads of students at the ends of each semester.

Bruce Osterby continued to offer the year-long CHM 103–*General Chemistry I* course for advanced West Salem HS students (the eighth time), and HS students often visit our Radiation Center and NMR Instrumentation Facility for demonstrations. Several chemists also continue to offer special **laboratory safety training** and testing for all Cowley Hall departments three times throughout the year. We have expanded our student tutoring hours in the Murphy Learning Center and now provide coverage for all of the courses in the first two years of our major and minor curricula as well as in biochemistry.

Chemistry faculty members were generally widely engaged in service and university governance at all levels, with a number of us in leadership positions. Likewise, most department members were active in various forms of professional and community service.

Section 5: Plans, Focus, Challenges, and Opportunities for 2016-17

We will begin the summer by having our Strategic Planning Committee perform a SWOT exercise with the entire department, and analysis of results will occur in the fall. Our ad hoc workload committee spent the past year investigating workloads and making recommendations to the department. These recommendations have been put into place for the next AY. We hope to continue seeking “American Society of Biochemistry and Molecular Biology (ASBMB)-Recognized” status, which would allow us to offer a more prestigious “ASBMB-Certified” BS degree in biochemistry. We will engage in more detailed planning for the move into a new science labs building, and hope to continue our instrumentation upgrade and maintenance efforts, as funding permits. We’ll begin preparing for the upcoming UWL APR. This will require solidifying some of our curricular revisions that are already in the works.

Staffing. We still need to hire a new GQA IAS member who would primarily teach *General Chemistry* and *Organic Chemistry* laboratories and help us to meet student demand in these areas. This lost position has been occupied for the past two years by sabbatical replacement, **Laura Herder**.

Challenges. Our main problem continues to be space. We operate well beyond capacity in Cowley Hall in both teaching and research and do not seem to be able to meet student demand for our (laboratory) courses. Additionally, many parts of the building continue to fail, and we repeatedly need to use department and college funds to make repairs and conduct maintenance. Office spaces, water supplies, ventilation, plumbing/flooding, and general crowding are the main problems. All of these should go away with the new science labs building, but we struggle to deliver quality services to our students and to do good work under the present conditions.

(1,134 words)

BRIEF ~300 word summary for Digital Measures/AA Website

Several department members received awards this year, mostly for teaching. Thirteen dept members were nominated for the Eagle Teaching Excellence Award, and one of these, newer faculty member **Nick McGrath**, was selected. Three chemists received awards from the Regional ACS section—**Sandra Koster** for outreach and service, **Heather Schenck** for dedication to chemistry education, and **Nick McGrath** for groundbreaking research. Four faculty members received UWL Faculty Research grants (**Gorres, Grilley, May, Weaver**) and two received UW-System/ARG-WiTAG research grants (**McGaff & Opdahl**). We received a generous endowment from the Chan family to establish two new scholarships and two summer undergraduate research fellowships. Our ACS-Student Affiliate chapter (“chem club”) advised by **Basu Bhattacharyya** and **Nadia Carmosini**, was recognized nationally with an Honorable Mention award for the second year in a row. An ad hoc departmental committee studied workload in the department all year and make recommendations, and a new strategic planning committee began its efforts that will continue into the next year.

Computer Science Annual Activities Report

June 1, 2015 - May 31, 2016

As we approach the 50th anniversary of the department, we continue to be delighted by renewed contacts with some of our earliest graduates. Mike Aspenson (Math & CS '73) came to campus in February and talked to an overflow crowd about his experience in the aerospace industry (VP at Lockheed Martin) and life lessons he has learned. This last semester we were also invited to a presentation on IBM Watson technology by two of our graduates currently working in Rochester MN. These events are extremely valuable to our students as they provide perspective on what a career in Computer Science really means over the long term.

Academic Programs, Students and Projects

The number of Computer Science majors and minors continues to increase both from entering freshmen and existing students wishing to switch majors. Enrollments in the three course introductory sequence are the highest they have been since 2000. Employment prospects remain very strong with essentially 100% of graduates finding employment in the field many of whom have offers of employment, as a result of paid internships, well before graduation.

There are two significant areas of curricular change: the introductory software design sequence (120, 220, 340) and the new computer engineering coursework. The department continues to work on the introductory design sequence. This sequence prepares the foundational skills for all upper level coursework. The department continues to refine the order in which topics are introduced and the emphasis that is placed on these topics in programming assignments. In view of the increasing number of topics that these courses need to cover the department decided to increase CS 340 to a four credit course starting with fall 2016. Over the last 15 years this sequence has increased from 9 to 12 credits because of the increased complexity of design decisions in modern programming environments. Last year the department decided to create a three course sequence focusing on hardware design of small embedded computing devices - the Internet of Things. We have now begun offering this coursework on a regular basis.

The MSE contract programs with the South Central University for Nationalities (SCUN) continue to show strong interest. Each cohort is at UWL for two years (first year coursework, second year capstone project). Each cohort has been averaging ten students.

There have been several notable student success this year. Zackery Erickson won the Strzelczyk Award and will be entering the Ph.D. program in robotics at Georgia Tech. Karam Veer Yadav won the UWL Graduate Achievement Award. The Women in Computer Science group has reorganized and expanded to become the CODERS group with the goal of providing community outreach support in computer science. The group is advised by Profs. Samantha Foley, Allison Sauppe & Mao Zheng. This year the group provided assistance to a Holmen High School robotics competition team and help short seminars in cooperation with the La Crosse Public Library.

Prof. Gendreau's collaborative project with Marquette University, funded through NSF, continues to work to better prepare high school teachers in the state to teach computer science. Prof.

Gendreau has also received funding through Google's CS4HS project to provide additional support for teachers in this program.

Staffing and Facilities

Last year the department conducted a search for three tenure track positions. Two of these positions were to be contract funded and instead of adding new FTE capacity would help offset the workload associated with managing capstone projects for contract students. The third position would allow the department to support the new coursework in computer engineering. Last year, the two contract positions were filled and this year the department was successful in hiring the computer engineering position. The department was also successful in hiring to fill an unexpected mid-year resignation.

The department operates a number of specialized systems and servers that support its laboratories, coursework and projects. There are also three systems specific to research projects. These systems are vital to the department's ability to innovate and offer unique opportunities to our students but represent a significant investment of effort.

As the department continues to pursue coursework and research activities in robotics and the Internet of Things the need for additional student lab and work space is becoming critical.

2015-16 SAH Geography and Earth Science Departmental Annual Report

Section 1: Success Stories

Accomplishments you would like to highlight this year

- The Department of Geography and Earth Science participated in the first Upper Midwest Geospatial Conference (UMGEOCON), held at UWL, May 25-26. We hosted workshops, a departmental display with equipment demonstrations (Unmanned Aerial Vehicle and terrestrial LiDAR) and gave four research presentations. GIS student poster competition winners had their posters displayed in the registration area. Approximately 300 GIS professionals attended.
- The Department hosted a visiting scholar, Jahzeel Aguilera Lara, from Mexico for six weeks in April-May 2016. She is completing her master's degree at the Environmental Geography Research Center (CIGA) in Morelia, Mexico, a part of the National Autonomous University of Mexico (UNAM). She worked with John Kelly on developing her thesis research. Ms. Aguilera Lara, an indigenous Nahua of Central Mexico, was funded by a grant from the Government of Mexico.

Are there opportunities to further utilize these accomplishments either in terms of public relations or strategic planning

- The UMGEOCON conference will likely return to La Crosse next year, offering the Department the opportunity to participate again. This year's conference was highly successful, and there is an opportunity for future public relations, in particular with the local news media.

Section 2: Programming and Students

Any update on program accomplishments/successes during the year that you would particularly like to highlight

- The Department completed its Academic Program Review in fall semester. Dr. Patrick Pease, Chair of the Geography Department at the University of Northern Iowa, conducted the external review. He provided a very thoughtful report, which the Department has used to implement changes in a number of areas, including programmatic reviews, curriculum revisions and assessment.
- The Department reviewed its core program goals, SLOs and assessment. This was facilitated by the College of SAH and a UWL Program Assessment Initiative Grant co-authored by John Kelly, Colin Belby and Daniel Sambu. Two afternoon retreats were conducted: 1) A re-examination of the core curriculum and programmatic SLOs, facilitated by Scott Cooper (Biology); and 2) Development of a programmatic assessment plan and tools, facilitated by Bonnie Bratina (Microbiology).

An update on new programs and changes to existing programs

- The Department started a complete review and redesign of the Environmental Science Concentration Major. The project is being led by Dr. Joan Bunbury, who is PI on a UWL Curriculum Redesign Grant. Others participating in the project are Drs. Belby, Reyerson and Berlin. This redesign includes examining GEO/ESC courses and how they fit into the program, with consideration of any needing removed from the concentration as well as gaps in the program necessitating new courses.
- In fall the Department reviewed the GIS Concentration Major. Changes to the program were implemented to make it more flexible and appeal to more students. These will be monitored over the next year.
- The Department is currently reviewing the GIS Minor. We are consulting with faculty from relevant departments to assess what curriculum would best serve their majors. The goal is to provide a flexible minor that meets the needs of students from a variety of majors across all colleges.

Information as to whether any programs require additional monitoring or redesign

- The Geography Major will be reviewed this coming academic year. The focus will be on program alignment with Department SLOs.
- The GIS Concentration Major will be monitored over the coming year to assess the effectiveness of the redesign.
- Changes to the GIS Minor should be formalized early in the upcoming fall semester.

Any new non-curricular programs that your college participates in and an analysis of the strengths and weaknesses of the program

NA

Any update on students' accomplishments/successes during the year that you would particularly like to highlight

- Two students, Evan Weiss and Justine Bula, presented research at the UWL Celebration of Undergraduate Research. Evan Weiss also presented at the UW system symposium in Stevens Point.
- Six students were initiated into the International Honor Society in Geography GTU on April 27, 2016: Josh Rostek, Sofia Kozidis, Justine Bula, Tammy Westberry, Jenna DeShaney and Karl Radke.

Any changes to the overall student mix in your college and plans for addressing these changes

NA

Section 3: Staffing, Resources and Facilities

An overview of the staffing situation for the year (hires, retirements, etc.) and any consequent changes/issues/priorities

Two new tenure-track faculty joined the Geography and Earth Science Department this year:

- Dr. John Kelly earned his Ph.D. in geography from the University of Kansas. He is a human geographer focusing on Latin America, territoriality and land ownership, and indigenous peoples.
- Dr. Niti Mishra earned his Ph.D. in geography from the University of Texas at Austin. His research interests lie in cartography, geovisualization and GIS applications for mapping, monitoring and management of natural resources.

The Department ADA, Karen Ott, retires on July 8, 2016 after 27 ½ years at UWL. This presents a number of issues for the Department since the position is not being replaced with a full-time hire (see Section 5, challenges).

Any update on faculty/staff accomplishments/successes during the year that you would particularly like to highlight

- Faculty in the Geography and Earth Science Department published 13 research papers in academic journals and peer-reviewed books (listed below), and gave 19 conference presentations. This is one of the highest levels of scholarship for the Department.
- Faculty served on 8 Biology graduate theses committees.

A summary of departmental scholarship and grant activity

Published and accepted:

Peer-Reviewed Journal Articles:

- **Belby, C.**, Perez, C. R., Gerrish, G. (2015). Understanding ecosystem change in upper Mississippi River backwaters through geochemical and biological analyses of sediment cores. *River Systems*. (Submitted: December 11, 2014, Accepted: May 2015, Published: August 12, 2015). DOI: <http://dx.doi.org/10.1127/rs/2015/0102>.
- Hargan, K., Ruhland, K., Paterson, A., Holmquist, J., MacDonald, G., **Bunbury, J.**, Finkelstein, S., Smol, J. (2015). Long-term successional changes in peatlands of the Hudson Bay Lowlands inferred by the ecological dynamics of multiple proxies. *The Holocene*, 25(1), 92-107. (Published: 2015).
- **Chaudhuri, G., Mishra, N.** Spatio-temporal dynamics of land cover and land surface temperature in Ganges-Brahmaputra delta: A comparative analysis between India and

Bangladesh. *Applied Geography*, 68, 68-83. (Submitted: October 2015, Accepted: January 2016).

- Dutta, S., **Chaudhuri, G.** (2015). Mapping Environmentally Sensitive Areas of Rajasthan in Western India. *Geographical Review*. (Accepted: February 2015, Published: October (4th Quarter/Autumn) 2015).
- **Mishra, N., Chaudhuri, G.** (2015). Spatio-temporal Analysis of Trends in Seasonal Vegetation Productivity across Uttarakhand, Indian Himalayas, 2000-2014,. *Applied Geography*, 56, 29- 41. (Published: 2015).
- **Mishra, N. B.**, Mainali, K. P., Crews, K. A. Modeling spatio-temporal variability in fires in semi-arid savannas: A satellite based assessment around Africa's largest protected area. *To appear in International Journal of Wildland Fire*, 25. (Accepted: April 2016).
- Hill, M. J., Zhou, Q., Sun, Q., Schaaf, C., Southworth, J., **Mishra, N. B.**, Gibbes, C., Brandt, T., Crews, K. Dynamics of the relationship between NDVI and SWIR32 vegetation indices in Southern Africa: Implications for retrieval of fractional cover from MODIS data. *International Journal of Remote Sensing*, 37(6). (Accepted: February 2016).
- **Mishra, N. B.**, Vrews, K., Neeti, N., Meyer, T., Young, K. MODIS derived vegetation greenness trends in African Savanna: Deconstructing and localizing the role of changing moisture availability, fire regime and anthropogenic impact. *Remote Sensing of Environment*. (Accepted: August 2015).
- Mason, J. A., Jacobs, P. M., Gruley, K. E., **Reyerson, P.**, Hanson, P. R. (2016). Parent material influence on soil response to vegetation change, Southeastern Minnesota, U.S.A.. *Report Generated on June 7, 2016 Page 54 of 61 Geoderma*. (Submitted: November 15, 2015, Accepted: April 2016, Published: April (2nd Quarter/Spring) 19, 2016).
- **Reyerson, P. E.**, Alexandre, A., Harutyunyan, A., Corbineau, R., Martinez De La Torre, H.A., Franz, B., Cattivelli, L., Santos, G. M. (2016). Unambiguous Evidence of old soil carbon in grass biosilica particles. *Biogeosciences*, 12, 1-41. (Submitted: June 19, 2015, Accepted: February 2016, Published: March 1, 2016).
www.biogeosciences.net/13/1269/2016/
- **Sambu, D. K.** (2016). Impact of global initiatives on drinking water access in Africa. *African Geographical Review*. (Published: February 25, 2016).

Book Chapters:

- **Mishra, N. B., Chaudhuri, C.** In Singh, R. B. (Ed.), *Spatially Variable Vegetation Greenness Trends in Uttarakhand Himalayas in Response to Environmental Drivers*. Berlin: Springer. (Accepted: January 2016).

- **Chaudhuri, G. In Mishra, N. (Ed.),** *Relationship between changes in Land Cover and Land Surface Temperature: A study of South Bengal, India.* (Submitted: December 15, 2014, Accepted: January 2016).

Conference Proceedings:

- King-Heiden, T. (Presenter & Author), **Belby, C.** (Co-Author), Gerrish, G. (Co-Author), 24th Annual Chapter Meeting, Midwest SETAC, Madison, WI, "Persistent lead contamination in an urban marsh: The legacy of lead shot", Regional, <http://www.uwlax.edu/conted/GEOCON/pdf/2016-UMGEOCON-program.pdf>, Oral Presentation, published in proceedings, peer-reviewed/refereed, Abstract, Accepted. (Date Presented: March 14, 2016).
- **Belby, C.** Upper Midwest Geospatial Conference, La Crosse, WI, "Mapping the Spatial Distribution of Lead in the La Crosse River Marsh" <http://www.uwlax.edu/conted/GEOCON/pdf/2016-UMGEOCON-program.pdf>, Oral Presentation, published in proceedings, peer-reviewed/refereed, Abstract, Accepted. (Date Presented: May 26, 2016, Date Accepted: February 15, 2016).
- **Berlin, C.**, Upper Midwest Geospatial Conference, La Crosse, WI, "Automated Feature Extraction of Land Cover for the Upper Mississippi River", <http://www.uwlax.edu/conted/GEOCON/pdf/2016-UMGEOCON-program.pdf>, Oral Presentation, published in proceedings, peer-reviewed/refereed, Abstract, Accepted. (Date Presented: May 26, 2016, Date Accepted: February 15, 2016).
- **Bunbury, J.**, Blumenstein, T., Upper Midwest Geospatial Conference, La Crosse, WI, "Assessing 20 Years of Land Use and Land Cover Change on Upper Midwest Lakes", Regional, <http://www.uwlax.edu/conted/GEOCON/pdf/2016-UMGEOCON-program.pdf>, Oral Presentation, published in proceedings, peer-reviewed/refereed, Abstract, Accepted. (Date Presented: May 26, 2016, Date Accepted: February 15, 2016).

External Grants: New and Continued

- **Belby, Colin** (Principal), Perroy, Ryan (Co-Principal), King-Heiden, Tisha (Co-Principal), Gerrish, Gretchen (Co-Principal), "Monitoring and Assessment of Legacy Lead Contamination in the La Crosse River Marsh"(Funded), External Grant, Sponsored by U.S. Environmental Protection Agency, \$64979. (July 1, 2012 - December 31, 2016).
- **Chaudhuri, Gargi**, "Dynamics of Urbanization in the Foothills of Himalayas in India"(Not Funded), External Grant, Sponsored by American Institute of Indian Studies, \$2000. (June 1, 2015 - August 1, 2015).
- **Mishra, Niti B** (Principal), "Using satellite remote sensing to characterize climate change impacts on tree line dynamics in Himalayas"(Funded), External Grant, Sponsored by GeoEye Foundation, \$7000. (November 22, 2015 - December 31, 2015).

- **Reyerson, Paul E** (Principal), "La Crosse County Landfill Topsoil Remediation and Storage Project" (Funded), External Grant, Sponsored by La Crosse County Disposal Facility, \$5000. (June 2015 - December 2015).

The status of resources and facilities with a particular emphasis on any changes, challenges, and developments during the year

NA

A staff development plan for the year

NA

Section 4: Outreach Activities

Inclusive excellence

See attached.

A summary of international activities and opportunities offered this year

- Dr. Daniel Sambu conducted research examining community wildlife conservation in rural areas in Kenya over the summer 2015. Dr. Sambu also is leading a study tour to Tanzania with Dr. Julie Weiskopf (History), June 25 – July 16, 2016. Twelve students are participating, and they will visit wildlife conservation parks.

Information on what sorts of fundraising and community engagement activities have been attempted, and their outcomes, this year

NA

Section 5: 2016-2017

Plans and focus for 2016-2017

- The Department plans to review the Geography Major. As part of this, we will examine the cultural/regional/human geography component.
- The Department plans to continue with efforts to attract new majors. The external reviewer for our APR made some excellent suggestions in his report, a number of which we hope to implement in the upcoming year.

A summary of foreseeable challenges and opportunities going forward

- Starting with the retirement of Karen Ott in July, the Geography and Earth Science Department will not have a full time ADA. The position will be split 50% with the CSAH Dean Office and 25% with the Department of Physics.

The ADA position is critical to the success of any department and program. This part-time, patch-work arrangement is extremely concerning to the Department. There will no

longer be a single person dedicated to the success of the Department's programs and providing continuous office support. This position is responsible for a wide variety of departmental activities, including (but not limited to) scheduling classes and rooms, coordinating student workers, assisting faculty and students, maintaining faculty and office records, running TAIs and SEIs, ordering supplies and equipment, reviewing travel and other reimbursements, and many other duties. The CSAH Dean's office receptionist does not have experience with many departmental activities. The Physics Department ADA already has a full-time appointment, and her responsibilities go beyond the standard ADA in that she supports the dual-degree program students. The Geography and Earth Science Department faculty are very concerned that the Physics ADA will have too heavy a work load and be unable to help support our Department.

It is the Department's understanding that this arrangement is temporary, and that in the near future the ADA position will be returned to full-time or at the very least a greater than 75% dedicated appointment that is filled by a single individual.

Suggestions for how the Dean/College Office might be of assistance in your efforts

- Given the reduction in ADA hours, the Department of Geography and Earth Science will need extra funding to support student worker coverage in the Department office. This funding cannot be tied to financial need (e.g. work-study), as we need the flexibility to hire a variety of student workers (preferably Geography majors or minors) for 20 hours a week.
- With a large group of Assistant Professors (6 non-tenured) and an Associate Professor in the Department of Geography and Earth Science, extra travel and research support will be needed. All are very involved in scholarship, and thus they will need funding beyond the minimal allotment currently available (only \$900 per person) to present at national conferences.

HEHP
Annual Report
2015-16

The HEHP Department is comprised of Public Health/Community Health Education (BS, MS, MPH), SHE (BS and MS [suspended]) and the online degree completion collaborative HWM (BS). The BS-PH/CHE and MPH-CHE are accredited by the Council on Education for Public Health (CEPH). Our BS-CHE was the first in the country to be accredited by CEPH. The pass percentage for our undergraduate students completing the Certified Health Education Specialist (CHES) exam is the highest in the country (93% pass versus national average 71%); the average score UWL approximately 117, National average 106. We are the only institution in the UW System to offer majors in community health education and school health education.

Accomplishments: 1. BS-CHE name change to BS-Public Health and Community Health Education –first in the state to offer a Bachelors degree in Public Health. Major revision to the BS-PHCHE curriculum. 2. Health for Generations Camp – July 2015 ran our first annual camp to promote health careers; introduce Native American Health school students to a college campus – students were from Pine Ridge, SD partnered with Area Health Education Center, La Crosse Health Science Academy and Gundersen Health System – will hold second camp this July. 3. The Department held its second annual Health Advocacy Summit in Madison during March – students spent time learning about advocacy and then used their newly developed skills to work with legislative staff regarding health issues. 4. The Beta Phi Chapter (our chapter) of Eta Sigma Gamma (our national honor society) received the national advocacy award as a result of their work on the Health Advocacy Summit identified earlier. 5. Keely Rees was presented with the Professional Mentor Award by the Society for Public Health Education. 6. Seven faculty members serve on numerous national committees and taskforces. 7. Several faculty members serve on local, state and regional committees/boards.

Scholarship: HEHP faculty made 16 national presentations (5 of these were with students)(many others at the local, state and regional levels); 3 students (1 ug and 2 grad.) presented nationally; 3 manuscripts were published by faculty; 1 book published; 1 book chapter.

Outreach Activities: 1. Health for Generations Camp. 2. Study tour to Great Britain (Spring Break 2016). 3. Summer of 2016 two faculty teaching internationally.

Plans for 2016-17: 1. Discussion/Revision of MPH-CHE curriculum. 2. Begin work with two-year campuses (WI and MN) regarding an AS degree in Public Health with articulation agreements to transfer to UWL. 3. Further develop Health for Generations Camp. 4. Complete and implement BS-PHCHE assessment plan. 5. Submit APRs for SHE, BS-PHCHE, MPH-CHE and BS-HWM.

Inclusive Excellence

1. Improving Access – Health for Generations Camp – Pine Ridge High schools brought to campus for a week in July. Designed to get them involved in the exploration of health-related career options and help them learn a bit about campus life. We plan to continue to expand this to others Native American groups from WI and MN, in addition to Pine Ridge.

Annual Report – Health Professions Report to the Dean

AY 2015-2016

Health Professions Graduate Degree Programs:

- Medical Dosimetry
- Occupational Therapy
- Physical Therapy
- Physician Assistant

Health Professions Undergraduate Programs:

- Nuclear Medicine Technology
- Radiation Therapy

All HP programs largely operate independently as programs, have extensive assessment and advising programs, are accredited, and have their own program director.

Health Professions Service Courses

- HP 105 (formerly SAH 105): Analysis of Health Wellness and Disease for the Health Care Consumer: Gen Ed Course (Total 70 students, 34 fall, 36 spring)
- HP 106: Introduction to Health Care Careers (Total 122 students, 67 fall, 55 spring)
- HP 250: Medical Terminology (Total 171 students, 52 summer, 40 fall, 79 spring)

1. Success Stories:

Student demand for HP programs remains strong. The table below depicts details regarding our applicant pool. For all programs combined admitted in 2016 (n=163 students) about 2/3 are women. For graduate programs, nearly 1/3 are UW-L graduates.

Program	Applications	Accepted	% Acceptance Rate	Cohort Mean GPA
GRADUATE				
Medical Dosimetry	53	29	55%	3.42
Occupational Therapy	176	26	15%	3.73
Physical Therapy	621	45	7%	3.81
Physician Assistant	352	19	5%	3.88
UNDERGRADUATE				
Nuclear Medicine Technology	27	25	93%	3.17
Radiation Therapy	43	19	44%	3.58

The educational outcomes for the professional programs in the HP department were excellent. The programs all measure the following student outcomes:

Pass Rates on National Certification Examinations. Graduates from many of the six programs achieved 100% pass rate on their national certification examinations. A record number (5 students) achieved a perfect score in the Physical Therapy Board Exam this year. All HP programs achieved scores above the national average.

Student Retention. Collectively, all six programs have a 97% retention rate from first to second year of the programs. This reflects the student centered curricula, extensive mentoring and advising as well as the high level of students that are applying.

Employment. Of those that have remained in contact, nearly all students obtained a jobs in their field of study within six months of graduation.

Occupational Therapy program received accreditation (10 year cycle).

Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT) approved two new internship sites where the NMT Program can clinically educate their students: Gundersen Health in La Crosse and UM Fairview in Minneapolis. HP service courses operating at capacity (HP 105, HP 106, HP 250).

Faculty mentored scholarship was prominent (13 faculty/student publications and 11 faculty/student poster presentations at national and state conferences) across various HP programs. HP faculty authors included Nishele Lenards published or has accepted 2 scholarly manuscript (Med Dos), Tom Kernozek published or has in press 8 manuscripts and 1 book chapter (PT), John Greany published 1 manuscript (PT), Chris Durall published 2 manuscripts (PT) and Paul Reuteman published 2 book chapters (PT).

The La Crosse Institute for Movement Science (est. 2005 in PT) published its 57th research manuscript in Index Medicus journals.

Clinical Education: 644 different HP student placements occurred at 234 clinical sites across the US in 2015-2016.

Strong faculty mentored service learning programs (OT adult and pediatric clinics, PT program's Exercise Program for Program for People with Neurological Disorders (EXPAND), Go Baby Go, Interprofessional Education with Viterbo, Central America trip and over 20 other community based organizations serving nearly 500 participants).

Two health professions faculty are presenting internationally (Tom Greiner (PT), Joan Temple (OT)).

Karen Gragham (PA) had the Article of the Year in the Journal of Physician Assistant Education.

PT faculty member (Paul Reuteman) honored by Marquette University College of Health Science for a Professional Achievement Award.

Patrick Grabowski (PT) was co-author as a consultant on a funded Department of Defense grant with UW and Miami.

Melissa Weege and Amanda Carpenter presented at the national ASRT radiation therapy conference in October of 2015 in San Antonio, Texas. They presented on their construction of an online program for the clinical education component of the radiation therapy program.

Amanda Carpenter (RT faculty) established an honor society chapter specifically for the RT program with 12 members being inducted this year.

RT program added 3 clinical affiliates this year for optional rotations for students in their senior year. All sites were also approved by the accreditation agency, JRCERT.

2. Students/Programming:

Medical Dosimetry hired additional adjunct faculty to expand and teach online courses. Program completed extensive curricular revisions and improvements.

Occupational Therapy Program was honored as the Most Accessible Department award by Students Advocating for Potential Ability (SAPA).

Tenth Annual Distinguished Lecture in Occupational Therapy took place with Dr. Wendy Coster. Presented a day long workshop for students, faculty, and 53 local clinicians. 18 graduate students and 15 undergraduate pre-OT students attended the American Occupational Therapy Association annual conference in Chicago. They received grants to assist with travel and conference expenses.

Amy Jo Garringer was awarded a scholarship from the National Occupational Therapy Association Foundation. Thomas Moodie was selected as an OTA delegate to the first emerging scholars event that supports and encourages students to pursue a career in research.

OT, PA and PT students collaborated with OT and PT students as part of an interprofessional case study at Viterbo University.

5 PT students attended professional meetings (Combined Sections meeting of American Physical Therapy Association, American Society of Biomechanics), 2 received grants from the UWL Graduate Studies to defray costs. 9 PT students presented posters at the UWL Celebration for Student Research and Creativity.

PT students were awarded Best Research Poster at Wisconsin State PT Meeting in Madison.

PA student, Kelly Bouchonville, received the MAPA student \$1,000 scholarship
1st year PA students came in 2nd place in the WAPA Challenge Bowl at the WAPA Spring Conference.

2nd year PA students came in 2nd place in the MAPA Challenge Bowl at the MAPA Spring Conference.

PA students were involved in the campus Relay for Life.

Vanessa Wentworth (RT) was selected as the Wisconsin representative of all radiography and radiation therapy programs to attend the 2016 ASRT Student Leadership Development Program in Las Vegas.

Elle Janssen (RT) was awarded one of four national student scholarships in the amount of \$5000 from the ASRT for her senior year.

Christina Nitecke (RT) had an article published in the *Radiation Therapist* journal about her experiences in Germany on a Fulbright scholarship and observing cancer care in Germany.

Chantel Harnois (RT) had an article published in the *Radiation Therapist* journal on working with children and adults who are autistic.

7 NMT students presented their research at the regional Central Chapter of the Society of Nuclear Medicine and Molecular Imaging Symposium in the Spring (2016), 3 NMT students presented their research at the Celebration of Student Research and Creativity, 13 NMT students will present their research at the national Society of Nuclear Medicine and Molecular Imaging conference in June of 2016.

Bryanna Koehnle (NMT) selected as the regional Student Representative for the Central Chapter of the Society of Nuclear Medicine.

Angela Perugini (NMT) selected as the National Student Representative for the Society of Nuclear Medicine and Molecular Imaging

3. Staffing and Resources:

Staffing:

Staffing levels have been stable in Med Dos, PA, NMT and RT. Recently, Amie Baumgartner and Mary Rathgaber were changed to a .5 FTE for 12 months in PA.

Amanda Carpenter completed her Masters of Science Degree in Education from UW-Stout in December, 2015. She also earned an online teaching certification.

It has been very challenging to recruit and retain faculty in some Health Professions Programs at UWL. Recently, there has been two new hires in PT and one new hire in OT. One open position remains in PT (tenure track line) and one in OT (IAS). The following were new hires in PT and OT:

Amy Taebel, PT, DPT, PCS as DCE/ IAS faculty in Physical Therapy (1/16)

Heather Fortune, PT, DPT / IAS faculty in Physical Therapy (9/16)

Angela Benfield, PhD, OTR / Tenure Track in Occupational Therapy

Drew Rutherford, MS / Laboratory Manager in Physical Therapy

Resignations: Stefanie Czosnyka (PT), Debra Doughty-Harris (OT), Virginia Gronwaldt (OT)

Radiation Therapy developed an online option for the clinical education component. This has created greater sustainability of the program with its clinical affiliates.

Resources:

Extensive budget discussions with UW-L Provost and VC of Finance regarding sustainability of HP Programs. This resulted in critical changes in budgeting of faculty positions, adjustments in encumbrances and resources dedicated to many of the programs.

Mrs. Jerry Strohm created a new PT scholarship in memory of her husband.

Occupational Therapy and Physical Therapy Job fair had 44 employers on campus. This event raised about \$12,000 for the program's foundation accounts.

RT program was able to secure funding through the Dean's office to obtain a new Vac-lok pump so students were able to construct and create various immobilization devices.

4. Outreach, Inclusive Excellence and Service:

HP student clinical placements occurred at 234 clinical sites across in a variety of both urban and rural regions of the US serving diverse clients.

Medical Dosimetry

Serves underrepresented student populations due to the online nature of the program. The growth of the program and the clinical internships has improved access for students across the United States.

Nishele Lenards, program director has explored accreditation agency and a national professional organization guidance to determine what steps are necessary to establish international clinical internship sites. There is on-going interest from international students and is a goal for the program to pursue.

Occupational Therapy

Inclusive excellence efforts were aimed at improving campus climate through helping OT students succeed in the program. In 2015-16, there were four students who were struggling and were helped to succeed through a combination of part-time studies, referral for services, and continual monitoring and advising by OT faculty.

11 adults and 9 children participated in the free OT adult and pediatric labs which enable OT students an opportunity to practice the entire treatment process with faculty supervision. In addition, it provides services for people who are not eligible for therapy services by other providers.

Project Funway is an inclusive fashion show at the mall. It features models with and without disabilities and gives the message that everyone can be interested in looking their best. This

has been put on by the OT student association for the past 9 years and now has become the mall's signature event.

The student association embraced the St. Cate's Challenge to raise money to support OT research. UW-L was in the top 10 schools who raised the most money.

Physician Assistant

Mary Rathgaber, Admissions Coordinator, has begun an outreach to promote the PA profession to underserved population. She has recently travelled to Mankato to represent the program at a Pre-PA meeting where she discussed the profession with both Somali and Hispanic students. PA faculty participated in National PA Week, Highway Clean Up, Salvation Army Bell Ringing, Pre-PA Club Meetings, Relay for Life, and Anatomy Memorial.

Physical Therapy

Amy Taebel and Drew Rutherford started a new program at UWL - GO BABY GO Cars. This is a program developed by Cole Galloway at the University of Delaware. Both the Physical and Occupational Therapy students collaboratively participated in a build of these cars to assist students with disabilities in movement. Gundersen, Mayo and Coulee Children's Center are serving as referral sources. Families within our community will benefit from this faculty/student service project. Laura Schaffer was the primary OT faculty member involved with the project.

Paul Reuteman presented 3 different courses: "Physical Therapy Management of Cervico-Thoracic Pain", "Manual Physical Therapy of the Lower Extremity" and "Physical Therapy Evaluation and Treatment of the Cervicothoracic Region".

Internationally renowned physical therapist Dr. Mary Massery presented a two day course with 16 clinicians/ alumni attending at UWL.

Michele Thorman and Gwyn Straker presented a Clinical Education Credentialing Workshop that resulting in 23 newly credentialed clinical instructors.

Michele Thorman (PT) and Joan Temple (OT) conducted the 9th annual career fair generating \$11,400 in profit to use for professional development activities, travel to conferences and OT scholarships. This also involved employer engagement opportunities where students participated in an employer interview.

Tom Kernozek and Drew Rutherford developed research proposals for and were granted the opportunity to be a software beta site for the Motek Medical group (Amsterdam, Netherlands) and Innovative Sports Training (Chicago, IL).

John Greany provided 2 community presentations (Tomah - Parkinson's support group and La Crosse - Multiple Sclerosis regional support group).

John Greany was appointed by the Governor to the Physical Therapy Examining Board in 2015 for a 3 year term.

Community program (EXPAND-Exercise for Adults with Neurologic Disorders), continues to grow in popularity and provides an opportunity for scholarship with the ongoing database of improvement. This program is directed by John Greany (PT). Approximately 65 community members participate in student supervised exercises (aerobic, strength and balance) twice a week for both the fall and spring semesters. Students provide approximately 1,500 hours of service each semester to the community. Several community members travel over 50 miles (one way) to participate in this program.

Patient/client related services were also delivered by PT students (Health and Wellness course) to the following community organizations: Onalaska High School, La Crosse Public Library, UW-La Crosse, Willows Assisted Living, YMCA, Curves of La Crosse, Anytome Fitness, La Crosse Wellness Center, Applause Dance studio, Shelby Terrance, Prairie Home, Laurel Manor, Mill St Manor, Salem Terrance, and La Crosse Archery. Approximately, 425 community members were connected to this service learning course either by a screening or interventional program.

Michele Thorman coordinated 4 second year students and 1 alumnus traveling to Guatemala with Hearts in Motion and provided PT services for 10 days. This was the result of 2 year of planning.

Radiation Therapy

Melissa Weege was a member of the ARRT Radiation Therapy Practice Analysis and CQR Committee. The 2 year committee recently completed their work in May 2016. The content specifications, professional tasks and clinical competencies were revised and will be put into effect in January 2017.

First year students in the RT program participated in various community service volunteering opportunities as part of their spring curriculum. Areas of service included the Hope Lodge in Rochester, MN where they made snacks and visited with cancer patients and their families who were staying there. Other areas of service were to waiting rooms at local cancer centers, visiting with patients as they waited for treatment, volunteering in the Livestrong program at the YMCA, being a driver for patients to their treatments in the Road to Recovery program. They also walked and raised money in Steppin' out in Pink in Fall 2015 and Relay for Life in Spring 2016. As part of the RT club, they had a special event where they donated \$1000 to the Kimberly D. Graham Extraordinary Scholarship.

RT faculty addressed the needs of non-traditional students in program, as well as students with various academic challenges including anxiety and a physical metabolic disorder.

Nuclear Medicine Technology

Aileen Staffroni (NMT) will serve as Secretary/Treasurer of the Central Chapter of the Society of Nuclear Medicine and Molecular Imaging and will be completing a 3 year term as a Board of Directors member of the Center for Molecular Imaging, Innovation and Translation.

Aileen Staffroni, as an advocate for the field of Nuclear Medicine, was invited to visit Washington, DC to discuss the challenges facing the growth of Nuclear Medicine in healthcare. Aileen Staffroni and NMT students hosted a continuing medical education event for all Nuclear Medicine Technologists in La Crosse and neighboring counties, offering 4 hours of CME. She also presented on the field of Nuclear Medicine Technology to 45 students in Wausau.

5. Plans and Focus for 2016-17

Med Dosimetry

Plans for managing the program workload, curriculum and staffing within existing resources.

Occupational Therapy

Facilitate a seamless transition with the new faculty to continue quality teaching/advising. Next year requires a strategic planning revision; future directions can be discussed with new faculty.

Two OT faculty will begin clinical doctorate programs (Robin Mc Cannon and Laura Schaffer).

Continue to build alliances between fieldwork educators and OT program through: Fieldwork Educator Academy, continue to provide free/lost cost continuing education and continue to include as many clinicians in courses as possible (mentors for projects).

Physician Assistant

PA program will have a site visit as part of its reaccreditation process in February 2017 and the program faculty and director will be focusing efforts on this for much of the summer and fall semesters.

PA program will be celebrating its 20th Anniversary in 2017. We will be hosting a 20th Anniversary gala and be inviting graduates from the classes of 1997-2017 in October 2017. Ruth Ballweg, the matriarch of the PA profession, has accepted our request to be the keynote speaker. Further details are forthcoming. This will be an excellent opportunity to engage our alumni!

Physical Therapy

Ongoing search and screen for vacant tenure track PT faculty position.

Increase in site visits in effort to meet the goals of the Clinical Education Program and increase presence in the clinic for more potential of internship offerings.

Prepare Self Study report for the Commission on Accreditation for Physical Therapy Education (site visit 2018).

Re-establish a PT Program Advisory Committee.

Ongoing PT curricular review for changes in staffing, faculty will continue to participate in Curricular Assessment by linking course objectives to Student Learning Outcomes and Accreditation criteria.

John Greany and Michele Thorman will attend Self-Study Workshops provided by the Commission of Physical Therapy Education (CAPTE) in summer and fall semesters.

Radiation Therapy

Having the online component of the program has created greater sustainability in being able to deliver curriculum to students during the clinical portion of the program. There is a strong likelihood that additional sites will no longer provide an on-site educator which will increase the number of students who will be receiving education via online education. This may increase the need for faculty to teach these courses as the student numbers grow.

In 2016-2017, the radiation therapy program will undergo its next accreditation review. This will result in an approximately \$2600 in fees for the self-submission and on-site visit. Per recent, Dean's office analysis of program's needs, this was funded.

Nuclear Medicine Technology

NMT Program Director Aileen Staffroni is exploring partnering with the recruiting office to visit/bring in students from under-served areas of La Crosse, Chicago, Milwaukee, Madison and Minneapolis to make them aware of the field in an effort to increase diversity in the NMT Program.

DEPARTMENT OF MATHEMATICS AND STATISTICS

Annual Report 2015-2016

The Department of Mathematics and Statistics had a very successful 2015-16. One major change was the approval of a new name for the Department. The Department also continued work on a thorough review of its curriculum that began in 2014-15, making some initial changes to its programs. In addition, the Department began work on its next Academic Program Review, with the completion of the self-study and the selection of the external evaluators. This gets the Department back in sync with the seven-year schedule. The Department also enrolled its first class of students in the collaborative Masters' program in Data Science.

Enrollment Information

Enrollment records indicate that there were 177 declared undergraduate mathematics majors in 2015-16, distributed among the various categories. Of these 177 majors, approximately 30% are regular math majors, 30% are math education majors, another 30% are statistics majors, and the remaining 10% consist of students with majors in the applied mathematics or the dual degree math/engineering. The number of statistics, and statistics with actuarial concentration majors continues strong. In addition, there are seven students enrolled in the new collaborative Masters' Degree in Data Science through UW-La Crosse.

		Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015
Major	Math	38	53	57	56	52	55
	Math Education	68	64	55	51	40	54
	Statistics	13	6	2	4	14	15
	Statistics w/ Actuarial Concen.	20	22	26	34	29	35
	Applied Emphasis	12	12	5	9	9	7
	Math/Engineering	7	9	5	6	7	11
	TOTAL	158	166	150	160	151	177
Minor	Math	68	70	84	98	124	120
	Math Education	66	52	50	43	62	59
	Statistics	6	6	5	9	8	10
	TOTAL	140	128	139	150	194	189

TABLE 1: Number of Majors/Minors per Year, by Type.

As a traditional academic discipline, mathematics is involved in the academic programs of virtually all UWL students and the curriculum offered by the Department of Mathematics and Statistics serves many different needs for the UWL student population. There are non-credit developmental courses for those students who need to improve their mathematics background before taking college level math courses, general education and service courses which provide all students with a solid foundation for their area of study, and there are the courses for the mathematics and statistics majors/minors.

Student demand for mathematics and statistics courses continues to increase as the student population grows. The Department created a new developmental course, MTH 045 Pre-Statistics, for those students who only plan on taking Elementary Statistics. Rather than algebraic concepts, this course introduces the ideas needed for a beginning statistics course.

Semester	Course Type	# of Sections	Enrollment	SCH
Fall 2015	Developmental	17	359	790
	General Education/Service*	73	2228	9093
	Major/Minor	31	696	2662
	Sp. Topics/Ind. Study	11	23	40
	TOTAL	126	3134	12585
Spring 2016	Developmental	10	198	289
	General Education/Service*	71	2079	8320
	Major/Minor	33	721	2718
	Sp. Topics/Ind. Study	10	16	25
	TOTAL	124	3014	11352

TABLE 2: Student Credit Hours by Course Type

* Through MTH 207, not counting 135/136

Curricular Changes

This year the Department of Mathematics and Statistics continued working on a comprehensive review of its curriculum to strengthen courses and programs to meet the changing needs of students enrolled in mathematics courses. Some of the results of this review include the following:

- Course outlines are being updated to reflect changes in many of the Department's courses.
- The renaming and/or renumbering of several courses to better reflect the course content.
 - MTH 410 Complex Analysis was renumbered MTH 362.
 - MTH 310 Calculus III: Multivariate Calculus was renamed Calculus III: Multivariable Calculus.
 - MTH 331 Introduction to Modern Geometry was renamed Modern Geometry.
 - MTH 371 Introduction to Numerical Methods was renamed Numerical Methods.
- A new prefix, STAT, was created and all statistics courses will receive this new prefix.
- New courses were created:
 - MTH 415 Topology
 - MTH 299 Mathematics and Statistics Tutor Training Practicum
 - STAT 320 Statistical Computing
- Changes have been made, or are currently in process, to the requirements for the Mathematics BS Program, Mathematics with Applied Emphasis Program, and the Statistics Program.
- Work continues on the creation of a Mathematics and Statistics Seminar course modeled after the very successful Physics seminar.

In addition, the new collaborative Online Masters' Degree in Data Science, with Jeff Baggett as the Academic Director, is off to solid start. It took its first group of students in Fall 15, and there are currently approximately 80 students in the program with 10 enrolled through UW- La Crosse.

The Department has also successfully begun the process for the development of a Master's of Applied Statistics. The pre-authorization proposal has been approved, and work is now progressing on the Entitlement to Plan.

Departmental Staffing

The instructional staff of the department in 2015-16 consisted of 30.5 faculty members and 10 instructional academic staff. During the academic year the Department chair had release time, one member taught half-time in the Department of Mathematics and Statistics and served half-time as the director of the UW-La Crosse Statistical Consulting Center, one member (with a .5 appointment in mathematics) served as chair of the Computer Science Department, and taught no courses for mathematics, and one member had release time to serve in the Grants Office. In the Spring semester, an additional faculty member served half-time as a faculty fellow in the School of Education.

- Retirements:

Karry Auby – the Academic Department Associate, retired after 37.5 years in the Department

Jeffrey Boyle – Associate Professor, faculty member since 1988

- New Faculty:

One new tenure-track faculty joined the Department in the Fall of 2015.

- David Liss II – Ph.D. in Mathematics Education from the University of Georgia (2015)

- New Instructional Academic Staff

Three new instructional academic staff members joined the Department in Fall 2015.

- George Chervený – hired as full-time IAS to teach developmental and elementary statistics and mathematics courses.
- Phillip Loehmer – hired as full-time IAS to teach primarily the developmental courses.
- William Truttschel – hired as full-time IAS to teach primarily the developmental and elementary mathematics courses.

- Searches:

In the Fall 15 semester, the Department began a search for a tenure-track faculty member in mathematics education. Unfortunately the position was lost when all GQA positions were frozen due to budget problem stemming from decreased enrollment.

Student Activities/Accomplishments

UWL continues its strong representation in mathematical modeling competitions. In October, the Department hosted the 7th annual Wisconsin Mathematical Modeling Challenge. WMMC 2015 had a record 21 total teams participate from 11 different schools including 1 local high school (Augsburg College, Bethel University, Carthage College, UW-Stout, UW-Whitewater, UWL, UW-Stevens Point, Winona State, UW-Richland, Onalaska High School). Competition winners were Carthage College and UW-Whitewater for best summary and presentation respectively. UWL had 7 total teams with UWL students Justin Schueller and Jessica First placing with the finalists as members of a hybrid team.

This year's competition included 2 problems for students to solve which came directly from industry. Excel Energy (the sponsor for WMMC 2015) provided a problem of pricing solar field plots for customers for a current program which they are developing. Fastenal Corp provided a scheduling problem for their employee training program. Members of Fastenal and other local companies were involved with the judging process and awards ceremony.

Several mathematics students continue working on projects with faculty mentors. These students have presented their work in various venues including UWL's Annual Celebration of Research and Creativity, the MAA Wisconsin Section Meeting, the National Conference on Undergraduate Research (NCUR), and the Nebraska Conference for Undergraduate Women in Mathematics. Barb Bennie's interns in the External Statistical Consulting Center even presented before an audience of physicians at Gundersen Lutheran.

Two students recently had papers written with their mentors accepted for publication. Melissa Bingham and former student Katie Gerds had their paper "Bootstrap Techniques for Measures of Center for Three-Dimensional Rotation Data" accepted for publication in *Involve*. Robert Allen's paper with student Isaac Craig, "Multiplication Operators on Weighted Banach Spaces of a Tree" with Isaac Craig was accepted for publication in the *Bulletin of the Korean Mathematical Society*.

Once again, the Department of Mathematics and Statistics had a great crop of graduating seniors. The top Murphy Award winner, Marissa Eckrote, is a Statistics Major. The Strzelczyk Award winner, Zackory Erickson, is a Mathematics and Computer Science double major. At least six mathematics or statistics graduates will be attending graduate school in Fall 2016.

Faculty and Staff Activities/Accomplishments

The faculty of the Department of Mathematics and Statistics continue to be active and engaged in teaching, scholarship and service. This is shown by our faculty on a daily basis, but this year it is highlighted by the following special recognitions:

- Eric Eager was selected as a 2016-17 Wisconsin Teaching Fellow.
- David Liss was selected as a 2016 STaR Fellow, the Mathematics Education version of Project NeXT.
- Barb Bennie and Eric Eager were awarded a 3-year NSF grant for a UW-La Crosse REU in Mathematical Ecology.
- Song Chen and Chad Vidden successfully applied to the PIC Math (Preparation for Industrial Careers in Mathematics) Program. This follows on their solid work in making connections with local industries including, Fastenal Corporation, Excel Energy, Logistic Health, Trane and Federated Insurance.
- Department members organized several successful conferences in 2015-16:
 - Conference on Research and Innovation in Teaching Mathematics with Technology (Josh Hertel)
 - MAA Wisconsin Section Meeting (Robert Allen, et.al)
 - Midwest Numerical Analysis Day (Song Chen and Chad Vidden)
 - Midwest Mathematical Biology Conference (James Peirce)
- Josh Hertel received the 2015-16 Outstanding Faculty Research Award.

❖ Teaching

In addition to their regular teaching assignments, 11 different faculty members advised or co-advised 17 students in undergraduate research projects. Some of these projects were funded through the Eagle Apprentice Program, Dean's Distinguished Fellowship, the Center for Undergraduate Research in Mathematics (CURM), a National Science Foundation Statistics Grant, and Fastenal Corporation.

Results of these projects were presented by the students at various local, state, national and international venues including the UWL Celebration of Research and Creativity, the College of SAH Summer Research Poster Session, the Wisconsin Section MAA Meeting and the National Conference on Undergraduate Research (NCUR). Nine different faculty members also taught 21 different special topics/independent study courses in areas such as Biostatistics Counseling, Math Aspects of Machine Learning, Algebraic Topology, Differential Geometry, Geometric Measure Theory and Galois Theory. Finally, the FastTrack program continues to be a very successful program.

❖ *Scholarship/Creativity*

The level of scholarly activity in the Department continues to be high. There were sixteen articles in journals or conference proceedings accepted/published by thirteen different faculty members. Twenty-six additional journal articles were submitted. The variety of backgrounds of our faculty really shows in the wide variety of journals in which they publish, including:

- Combinatorica
- Numerical Methods for Partial Differential Equations
- Ecological Modeling
- Journal of Student Affairs Research and Practice
- Journal of Statistical Distributions and Applications
- Involve: A Journal of Mathematics
- Wisconsin Teacher of Mathematics
- Computers and Mathematics with Applications
- Stochastics and Dynamics
- SIAM Undergraduate Research Online
- Letters in Biomathematics

In addition, Jennifer Kosiak and Jenni McCool had two books on problem solving published by the National Council of Teachers of Mathematics (NCTM).

- Problem Solving for All Seasons: PreK-2
- Problem Solving for All Seasons: Grades 3-5

Multiple presentations were given by nineteen different faculty members. Not counting Department colloquia and talks to Departmental clubs, this includes eleven presentations locally and over 40 at the regional, national or international level. Two faculty members also gave invited talks:

- Tushar Das gave invited presentations at:
 - the AMS Special Session on Fractal Geometry and Dynamical Systems at the 2016 Joint Mathematics Meetings in Seattle, and
 - the 2016 Ergodic Theory and Dynamical Systems Workshop at the University of North Carolina - Chapel Hill.
- Robert Allen gave an invited Colloquium talk at George Mason University in Fairfax, Virginia.

Faculty in the Department of Mathematics and Statistics were also involved in many review activities for various mathematical competitions, conferences and journals. Several faculty serve on journal editorial boards. Heather Hulett and Todd Will are Editorial Board Members for the College Mathematics Journal, Jenn Kosiak is a member of the Editorial Panel for the Wisconsin Mathematics Council and in this capacity is co-editor of the Wisconsin Mathematics Teacher along with Josh Hertel and Jenni McCool. In addition to these editorial review activities, eleven different faculty members reviewed multiple articles for a wide variety of journals, including the

Journal of Graph Theory, Letters in Biomathematics, Journal of Mathematical Behavior, AMS Math Reviews, and Journal of Statistical Distributions and Applications.

The grant writing activity of department faculty has brought in over \$368,000 this year in external grants (outside the UW-System), not counting continuing funding for multi-year grants previously awarded. These external grants come from multiple organizations including the National Science Foundation, the American Institute of Mathematics, Xcel Energy, the Center for Undergraduate Research in Mathematics (CURM) and the Wisconsin Space Grant Consortium. In addition, faculty were awarded another \$49,000 in local UWL grants including five summer Faculty Research Grants and three Faculty Development Grants.

In a less familiar area of mathematical scholarship/creativity, Karl Kattchee again displayed mathematical art at the Exhibition of Mathematical Art at the AMS/MAA Joint Mathematics Meetings. One of his pieces, "45 Poppies", was awarded Best Photograph, Painting, or Print at the 2016 JMM Mathematical Art Exhibition, and was chosen to grace the cover of the February/March 2016 MAA Focus Magazine.

❖ *Service*

The Mathematics and Statistics faculty are involved in a wide range of service activities at the departmental, college, university and professional level. The success of a department depends, in great part, on faculty involvement in all areas involved in the running of the department. Every Department member is actively involved in one or more departmental activities. Along with annual department activities such as merit reviews, retention and promotion, running the Math and Statistics Club, etc., this year faculty were involved, various curricular and assessment committees, math modeling contests, and much more. Some of new(er) departmental activities this year include the following.

- Doug Baumann and Nathan Warnberg ran the first session of the Mathematics and Statistics Tutor Training Practicum. Now listed as MTH 299, this 1-credit course is required before a student can tutor for the Department.
- Chad Vidden and Song Chen started a Machine Learning Group which has become very active and resulted in multiple student projects and presentations.
- Chad Vidden and Song Chen have ramped up their networking with local companies and organizations including Fastenal, Trane, Excel Energy, and Federated Insurance. The connections they have made have already resulted in several student internships.
- The UWL Mathematics and Statistics Department Colloquium continues to offer talks by local and invited faculty, as well as focusing on student involvement and recruitment to the major. Several talks this year were given by students in preparation for presentations at other venues. Feedback from students shows great interest in the exposure to mathematics that they might not have seen otherwise.
 - Fall 2015
 - 12 total presentations
 - 2 student colloquiums with a variety of student presentations
 - 2 outside speakers from industry (Federated Insurance, IBM Watson.)
 - 4 outside speakers from other universities (University of Iowa, University of Minnesota, Carthage College and Iowa State University)
 - 4 math faculty talks
 - Spring 2016
 - 4 total presentations
 - 1 student colloquium involving 2 student speakers
 - 1 outside speaker from Iowa State University
 - 2 math faculty talks

At the college and university levels, math faculty and staff left their mark as well.

- Chairing major university committees
 - Joint Multicultural Affairs Committee – Eddie Kim
 - Joint Planning and Budget Committee – Becky LeDocq
 - Academic Planning – Melissa Bingham
- Chairing major college committees
 - SAH College Committee – Melissa Bingham
 - STEP Admissions Committee – Matt Chedister
 - STEP Recruitment and Retention Committee – Matt Chedister
 - STEP Curriculum Committee – Josh Hertel
 - School of Education Technology Task Force – Josh Hertel
- Faculty Fellow in the Office of Sponsored Research – James Peirce
- Faculty Fellow in the School of Education – Josh Hertel
- Membership on over 20 different college- or university - wide committees including:
 - College Committee
 - Faculty Senate
 - Promotion, Tenure, and Salary Committee
 - Academic Program Review
 - Academic Policies and Standards Committee
 - Academic Planning Committee
 - College Assessment Committee
 - Instructional Academic Staff Committee
 - Undergraduate Curriculum Committee
 - Joint Planning and Budget Committee
 - Joint Multicultural Affairs Committee
 - Faculty Development Committee

Mathematics and Statistics faculty are also very involved in professional and community service activities. Activities for the past year included the following:

- Session Chair for Nebraska Conference for Undergraduate Women in Mathematics (Melissa Bingham)
- Director of Project NExT-Wisconsin (Eric Eager)
- MAA Committee on Early Career Mathematicians (Eric Eager)
- Administrator of Mathematics Education Researchers Facebook Group (Josh Hertel)
- Webmaster for the North American Chapter of the International Group for the Psychology of Mathematics Education (Josh Hertel)
- President of the Wisconsin Mathematics Council (Jenn Kosiak)
- Board member of the Wisconsin State Mathematics Initiative (Jenn Kosiak)
- Member of the Social Justice Task Force (Jenn Kosiak)
- Program Director for the Science and Math Expo, Girls in Science Program, and Boys Science Weekend programs (Sue Kelly)
- Wisconsin Mathematics Leadership Council (Jenni McCool)
- Member of the Wisconsin Department of Public Instruction Task Force (Jenni McCool)

Inclusive Excellence - See Attached

Becky LeDocq
 Department of Mathematics and Statistics Chair
 June 3, 2016

**Department of Microbiology
University of Wisconsin-La Crosse
Annual Report June 1 2015-May 31 2016**

Section 1: Success Stories

- **Accomplishments you would like to highlight this year**

The Microbiology Department hosted the 75th Annual Meeting of the North Central Branch of the American Society for Microbiology on October 23-24, 2015. Nearly 140 people from Wisconsin, Minnesota, Iowa, and the Dakotas were in attendance. Of the meeting's 77 research presenters, 61 were graduate and undergraduate students. UWL microbiology and biology research was well-represented by five graduate and four undergraduate students who presented research within the fields of environmental and medical microbiology. Undergraduates Carli Johnson and Alyce Addesso presented posters outlining research they are doing with Dr. Peter Wilker. Lauren Lipker and Elissa Harter each gave oral presentations describing undergraduate research they are conducting with Dr. William Schwan. Their research is part of the Emerging Technology Center for Pharmaceutical Development at UWL, including Schwan and colleagues in the microbiology, biology, and chemistry departments. The mission of the Emerging Technology Center for Pharmaceutical Development is to find new antibiotic chemicals that could be used to treat infections caused by superbugs, bacteria that have developed a resistance to existing antibiotic treatments. Lauren and Elissa won second and third prize awards, respectively, for their oral presentations.

The Microbiology Department hosted the 3rd Annual Wisconsin meeting on September 24-25, 2015. It was attended by approximately 70 research scientists specializing in virology from the University of Wisconsin-Madison and University of Minnesota-Twin Cities. We have approximately 10 undergraduate and graduate students listen to selected talks and circulate through the poster session. We also organized a lunch for our undergraduates (8 or so came) so they could meet with current graduate students and post-docs at these institutions to learn about the virology programs and graduate school in general. Our students did not present at this conference.

Section 2: Programming and Students

- **Program accomplishments/successes/updates**

The Microbiology Department's application for its own entitlement to offer Masters degrees in Microbiology and Clinical Microbiology passed through all the administrative hurdles at UWL, including approval by the UWL Faculty Senate and Chancellor. It was approved by the UW System Board of Regents on June 10, 2016. Sandy Grunwald and Mike Hoffman did the bulk of the work on this effort.

The Microbiology Department completed its Academic Program Review. The APR Self Study Report was submitted in early October 2015. External reviewers, Dr. Colleen McDermott (Microbiology) and John Strous, MS, MLS(ASCP) visited the department on November 5-6, 2015 and submitted their report within three weeks. The Microbiology Department submitted its response to the reviewers' comments and recommendations in

April 2016. We are awaiting the Dean's and the UWL APR Committee's response and final summary report.

- **Information as to whether any programs require additional monitoring or redesign**
Microbiology is in the midst of investigating the pros and cons of splitting MIC 230 Fundamentals of Microbiology combined lecture/lab into separate lecture and lab classes. The rationale for this is that MIC 230 labs have very long waiting lists, so we need to know if there are a number of students whose needs would be satisfied by lecture only. The MIC 230 students were surveyed in spring 2016 to find out what they think would be the advantages and disadvantages of such a change. The survey results and other factors related to this change will be discussed at the Microbiology Department summer retreat, 2016.

Changes were made to the Microbiology Capstone Assessment program based upon assessment results from previous years. In particular, the Capstone oral presentation requirements were changed to require students to present research from the primary literature (instead of a topic review). The result was a big improvement in quality of presentations and a new ability to assess students' ability to understand and interpret results of original research in microbiology.

- **Any new non-curricular programs that your college participates in and an analysis of the strengths and weaknesses of the program**
Microbiology is participating in the Murphy Learning Center by providing student tutors to help students with MIC 230 and other microbiology classes. We are struggling to find both the staff time and funds to fully support this endeavor, and the number of microbiology students using this program seems fairly limited. At our summer 2016 retreat we will discuss the pros and cons of continuing to be involved in this program and ways to better support this endeavor if we continue to be involved.

Microbiologist Dr. Peter Wilker hosted a student in the Eagle Apprenticeship program this year. This program hooks up first year students with faculty who can help them get involved in research beginning right away. Students receive financial support and faculty have a chance to work with a student for four years, which can result in more in-depth training and experience for the student with strong potential to produce valuable research results for the faculty member's research program in their last two years.

- **Any update on students' accomplishments/successes during the year that you would particularly like to highlight**

Five graduate students and three undergraduate students were co-authors along with Bill Schwan and Mike Hoffman on peer-reviewed scientific articles published in 2015-16.

UWL Microbiology undergraduate students Lauren Lipker and Elissa Harter won second and third place awards for their oral presentations at the North Central Branch American Society for Microbiology meeting in October 2015.

Five graduate students in microbiology (Adam Vance, Amanda Anderson, Suresh Kandel, Amy Baker and Garrett Schuh) were awarded RSEL grants from the Graduate Studies Office to work on their masters thesis research.

At least ten (grad and undergrad) presented their original microbiology research in poster or oral format at local, regional, national and international conferences.

- **Any changes to the overall student mix in your college and plans for addressing these changes**

Overall numbers and mix of Microbiology and Clinical Lab Science majors are holding steady. We graduated 28 Microbiology majors and 30 Clinical Lab Science majors in 2015-16 – similar numbers to 2014-15.. As mentioned last year, we are seeing increased numbers of biochemistry majors taking microbiology courses, especially MIC 416 Microbial Genetics and MIC 425 Bacterial Physiology. One of these two courses is also currently required for the Microbiology minor. To reduce pressure on these two courses that cannot be expanded into more lab sections, we will discuss the Microbiology Minor requirements at our summer 2016 retreat. We hope to loosen the course options for the minor to give students more options besides MIC 416 and MIC 425.

Section 3: Staffing, Resources and Facilities

- **An overview of the staffing situation for the year (hires, retirements, etc.) and any consequent changes/issues/priorities**

New Hire

Kari Johnson, MS, MBA, MLS(ASCP) was hired in May 2016 (to start in August 2016) for our Clinical Assistant Professor position in Clinical Laboratory Science/Microbiology. Kari fills a position that had been vacant for three years, since Michael Lazzari took over the Clinical Laboratory Science Director position from Diane Sewell when she retired. Kari will help Michael Lazzari teach the CLS classes and will teach MIC 230 Fundamentals of Microbiology lecture and lab sections.

Recent Hires

Dr. Xinui Li was hired in January 2015 just a few days before classes started. Thus Dr. Li spent summer 2015 setting up his research lab and writing grant proposals, as well as preparing to make improvements to the MIC 380 Food Microbiology course. Dr. Li is working extremely hard to improve his teaching. He is also quickly establishing his research program, and he received a UWL faculty research grant (\$9473) for next year to study antibiotic resistance in bacteria found in foods. He mentored a graduate student and several undergraduate students in his research lab in his first year. He also submitted a Wisconsin System technology grant to simultaneously detect and count total viable and viable coliform bacteria in foods, which was not funded.

Anne Mach, MS was hired in April 2015 and became full-time in fall 2015, taking over seven lab class preps in clinical lab science and microbiology from Angela Ratekin who has moved to Omaha, NE. Anne is extremely well experienced in chemistry and biology and microbiology lab preparation, but came in with less experience in clinical laboratory science. Anne went great lengths in her first year to train in phlebotomy and work with Dr. Michael Lazzari to understand the class prep for the Clinical Lab Science

Program. Anne has become a key member of the Microbiology Lab Safety committee, and has made huge progress in instituting proper hazard labeling for in-house reagent bottles and generating standard operating procedures for equipment used by many students and faculty in the department.

Resignation / Search for replacement

James Parejko resigned his Assistant Professor position in Bacterial Physiology in May, 2016 in order to move to a location with better work opportunities for his spouse. This will result in Michael Lazzari teaching a four contact hour overload in fall 2016 to cover Jim's MIC 230 lab. Bonnie Bratina will teach Jim's MIC 230 lecture (a large lecture) and Xinhui Li will teach Bonnie's MIC 230 lab section. We have already started a search to try to hire a new bacterial physiologist for spring 2017, because MIC 425 Bacterial Physiology is a core requirement for graduating microbiology seniors. We hope to review applicants for this position in early fall semester.

- **A summary of departmental scholarship and grant activity**

Microbiology faculty (n=8) applied for a total of eleven grants, including five external grants. Seven grants were funded for a total of \$33,503. Grants included CATL and faculty development grants to James Parejko, UWL Foundation grant to Bill Schwan, UWL Faculty Research grants to Mike Hoffman and Xinhui Li and WiSys technology grants to Bill Schwan, Mike Hoffman and Peter Wilker. NIH grants were submitted by Bill Schwan, but not funded.

Seven peer-reviewed research articles were published by microbiology faculty acting as authors or co-authors, including four by Xinhui Li, two by Bill Schwan and one by Mike Hoffman.

Seven conference presentations were made by microbiology faculty at international and regional meetings including two by Bernadette Taylor, four by Bill Schwan and one by Mike Hoffman.

Xinhui Li acted as a reviewer for a total of nineteen different research articles and conference presentations. Bill Schwan acted as a reviewer for fifteen different research articles.

Microbiology faculty acted as primary thesis advisors for a total of 23 masters thesis projects in microbiology. They collectively served as thesis committee members for an additional 34 masters thesis committees.

- **The status of resources and facilities with a particular emphasis on any changes, challenges, and developments during the year**

The Microbiology Department benefited from one-time equipment and supplies funds made available to the college through Dean Riley. We purchased replacement equipment for Clinical Laboratory Science, repaired the flow cytometer used by Biology and Microbiology and funded redesign projects for MIC 380 Food Microbiology and MIC 421 Virology. We were challenged with trying to find a solution to increased frequency

of thefts of student backpacks from outside the lab classrooms on the third floor of Cowley. Doug Pearson agreed in May 2016 to purchase student lockers for lab classrooms 302, 308, 314 and 320 to be available starting fall 2016. The lack of space for research and new equipment is a constant challenge (but you knew that). We constantly have problems with temperature control in the faculty offices and lab classrooms and the window and ceiling and pipe leaks are a constant issue also.

- **A staff development plan for the year**

Interpreted as training/skills development opportunities for staff. Non-instructional academic staff working in the microbiology prep room will receive the opportunity for the first time to attend the UW Madison Women and Leadership Symposium in July 2016 – a one day conference that offers tools to enhance productivity, efficiency and team coordination. (All our prep room staff are female currently). Professional development opportunities for prep room staff have not been offered previously, so we are glad to get the ball rolling on this. Our ADA, Susan Betts will attend this meeting also, as she did for the first time last year.

In general all faculty and instructional staff routinely have the opportunity to attend professional development opportunities available on campus and through our scientific and higher education societies and associations.

Section 4: Outreach Activities

- Inclusive excellence (see page 2)

- **A summary of international activities and opportunities offered this year**

Sue Anglehart is serving on the International Education and Engagement Director Search and Screen Committee. This committee formed in summer 2015, was suspended and is up and running again as of May 2016. Sue has taken students to India over J term to study health care in a less developed setting. She hopes to do this again in future J terms.

- **Information on what sorts of fundraising and community engagement activities have been attempted, and their outcomes, this year**

Marisa Barbknecht served as a judge for the La Crescent Middle School Science fair. Bonnie Bratina participated in Augsburg Fairview Academy's Career Fair to help young adults facing educational barriers to learn about careers in microbiology. Michael Lazzari taught 7th grade students in Sparta about blood-typing and 2nd/3rd grade students about bacteria cultured from hands and every-day objects. James Parejko volunteered for the Kane Street Community Garden Hunger Task Force. The Microbiology Club and several faculty members participated as usual in the annual Bowl for Kids Sake event in La Crosse.

Section 5: 2016-2017

Please provide:

- **Plans and focus for 2016-2017**

- Hire a tenure track faculty member in bacterial physiology (to replace James Parejko)
- Determine if we do want to split MIC 230 lecture from lab to create separate courses. If so, make necessary changes to the program regarding credits, etc.
- Make changes to the Microbiology Minor to make it more flexible and provide students with more options.

- Scrutinize the Microbiology curriculum and assess ideas for efficiencies and improvements, e.g. reducing MIC 425 Bacterial Physiology lab from two 3-hour sections per week to two 2-hour sections per week.
- Make improvements to the microbiology department's merit evaluation process. The general consensus is that this process needs to be more efficient and logical. Prep room staff have previously been using IAS merit evaluation tools, among other issues.
- Begin work on creating our own Microbiology Masters policies and guidelines, since we now have our own entitlement and are no longer under the umbrella of Biology.
- Begin to get the Microbiology Department Bylaws up to date. This task has been on the back burner for a long time.
- **A summary of foreseeable challenges and opportunities going forward**
Challenges include offering our full complement of courses while being short-staffed next year (or at least for fall semester). We have not had full staffing levels in Microbiology for three years and so there is some burn out on the part of faculty and staff teaching extra sections. Related to this, the time has come to update MIC 230 Fundamentals of Microbiology lecture/lab. This is the introductory course for the Microbiology major, and we need to renovate it in regard to content and pedagogy. The faculty that teach the lecture have no time currently to do redesign work, so we need to work on a plan to make this happen in the near future.

Developing our new guidelines and policies for our Masters in Microbiology program will be a substantial piece of work. We also look forward to opportunities for the graduate program going forward, in particular the potential for collaboration with the College of Business and others to explore a professional science masters program.

- **Suggestions for how the Dean/College Office might be of assistance in your efforts**
The Dean and College Office might be of help in providing resources in the form of release time and funding for faculty working on renovating/redesigning MIC 230 and developing the professional science masters program, which will require outreach to industrial partners. In the immediate future, we will ask the Dean for faculty overload pay and /or pay for graduate assistants who are teaching extra sections due to the resignation of James Parejko and consequent short fall in staff for fall 2016 and potentially spring 2017.

Inclusive Excellence: Addition to the department/college/division's annual report

UW-L and UW System have identified three central goals for the Inclusive Excellence initiative, aimed at serving historically underrepresented student populations better: **improving access; closing equity gaps** (differences in performance between underserved populations and students as a whole); and **improving the campus climate**.

2015-2016 - Please focus your reports on IE activities related to students of color and/or low-income students (students of color are overrepresented among low-income students). This year we will pilot this grid which is a variation on last year's IE report. If your department/unit has no activity/progress to report in any of these areas, we still need to know your goals for next year. Complete this grid and save as a PDF and submit to your Dean as an attachment with your annual report.

How will this be used? The Inclusive Excellence Assessment Committee will summarize across units to get a better profile of UWL and use the responses to drive programming and next steps.

Do you have questions? Need help? Please contact Deb Hoskins (CATL) dhoskins@uwlax.edu

2015-2016 SAH PHYSICS DEPARTMENT ANNUAL REPORT

SECTION 1: SUCCESS STORIES

Accomplishments you would like to highlight this year:

- Joint Task Force on Undergraduate Physics Programs (J-TUPP)***
 The Physics Department has been invited to participate in J-TUPP, a joint task force convened by the American Physical Society (APS) and the American Association of Physics Teachers (AAPT) to engage and inform physicists in determining what skills and knowledge the next generation of undergraduate physics degree holders should possess to be well prepared for a diverse set of careers.
- University of Wisconsin-La Crosse Physics Department Ranked #5 in the Nation***
 According to the American Institute of Physics (AIP) November 2015 rankings, the Physics Department is ranked #5 in the nation for the average number of physics degrees conferred (27 during 2012-2014) in a Bachelor's-only department averaging 10 or more physics bachelor's degrees per year, classes of 2012-2014.

Bachelor's-Only Departments Averaging 10 or More Physics Bachelor's Degrees Per Year, Classes of 2012 through 2014.

Annual Avg.	Annual Avg.	Annual Avg.
SUNY College, Geneseo (NY) 36	Kutztown U (PA) 15	Kettering U (MI) 11
Cal Poly St U, San Luis Obispo 30	U of Wisconsin, River Falls 15	Salisbury U (MD) 11
Saint Olaf College (MN) 29	Central Washington U 14	Taylor U (IN) 11
US Naval Academy (MD) 29	Fordham U (NY) 14	Truman State U (MO) 11
U of Wisconsin, La Crosse 27	Grinnell College (IA) 14	U of Puerto Rico, Humacao 11
Western Washington U (WA) 26	Kalamazoo College (MI) 14	Weber State U (UT) 11
Rowan U (NJ) 24	Middlebury College (VT) 14	Austin Peay State U (TN) 10
Reed College (OR) 23	Oberlin College (OH) 14	Bates College (ME) 10
The College of New Jersey 23	Towson U (MD) 14	Beloit College (WI) 10
U of Wisconsin, Eau Claire 22	College of Charleston (SC) 13	Bloomsburg U (PA) 10
Carleton College (MN) 20	Ithaca College (NY) 13	Coll. of the Holy Cross (MA) 10
Harvey Mudd College (CA) 19	Macalester Coll (MN) 13	Furman U (SC) 10
Whitworth U (WA) 19	Middle Tennessee State U 13	Gettysburg College (PA) 10
Bethel U (MN) 18	US Air Force Academy (CO) 13	Hamilton College (NY) 10
Williams College (MA) 18	U of Richmond (VA) 13	Juniata College (PA) 10
Bowdoin College (ME) 17	Colgate U (NY) 12	Lewis & Clark College (OR) 10
Gustavus Adolphus Coll (MN) 17	Illinois Wesleyan U 12	Morehouse College (GA) 10
Illinois State U 17	Pomona College (CA) 12	Mount Holyoke College (MA) 10
U of North Georgia 17	Siena College (NY) 12	U of Central Arkansas 10
Angelo State U (TX) 16	SUNY College, Oneonta (NY) 12	U of Northern Colorado 10
Brigham Young U (ID) 16	US Military Academy (NY) 12	U of Puget Sound (WA) 10
James Madison U (VA) 16	Amherst College (MA) 11	U of Wisconsin, Platteville 10
Rochester Inst of Tech (NY) 16	College of Wooster (OH) 11	U of Wisconsin, Whitewater 10
Colby College (ME) 15	East Tennessee State U 11	Utah Valley U (UT) 10
Colorado College (CO) 15	Eastern Illinois U 11	

List includes only those departments that offered a bachelors as their highest physics degree in 2014 and contributed degree data for all 3 years.

- ***Distinguished Lecture Series in Physics (DLS)***

Dr. David Gross, co-winner of the 2004 Nobel Prize in Physics and the former director of the Kavli Institute of Theoretical Physics at the University of California Santa Barbara, served as the Physics Department's Distinguished Lecture Series in Physics (DLS) speaker on September 24-25, 2015. Dr. Gross gave a public lecture entitled "The Frontiers of Fundamental Physics" and a physics seminar entitled "The Enduring Legacy of Albert Einstein".

- ***Public Lecture Series in Physics (PLS)***

Dr. Arati Dasgupta, Head, Atomic Physics and Ionization Kinetics Section, Radiation Hydrodynamics Branch, Plasma Physics Division, U.S. Naval Research Laboratory, was the 2016 Public Lecture in Physics speaker on April 21-22, 2016. Dr. Dasgupta gave a public lecture entitled "The Story of Controlled Thermonuclear Fusion: Promising Pathway to Clean and Abundant Energy" and a physics seminar entitled "Atomic and Radiation Physics Modeling of High Energy Density Plasmas in Extreme Conditions".

Are there opportunities to further utilize these accomplishments either in terms of public relations or strategic planning:

No.

SECTION 2: PROGRAMMING AND STUDENTS

Any update on program accomplishments/successes during the year that you would particularly like to highlight:

- Thirty-one physics majors, including dual degree students, graduated from UWL during 2015-2016, which puts UWL at the top of the AIP list of Bachelor's-Only Departments Averaging 10 or more Physics Bachelor's Degrees per year for classes of 2014-2016.
- Twenty-eight Physics majors will be transferring to various engineering colleges (UW-Madison, Milwaukee, Platteville, University of Minnesota, and Winona State University) in September 2016.

An update on new programs and changes to existing programs:

The Physics Department entered into an agreement with the Winona State University Engineering Department to set up a Dual Degree Program in Physics and Composite Materials Engineering. This agreement became effective in Fall 2015.

Information as to whether any programs require additional monitoring or redesign:

N/A

Any new non-curricular programs that your college participates in and an analysis of the strengths and weaknesses of the program:

N/A

Any update on students' accomplishments/successes during the year that you would particularly like to highlight:

- Physics majors selected for Summer 2016 Research Experience for Undergraduates (REU) / Internship programs:
 - Evan Dowling – Lawrence Livermore National Laboratory, CA
 - Scott Erickson – University of Iowa, IA (also accepted at Northwestern University, IL)
 - Carter Hughes – University of Notre Dame, IN
 - Madeline Lambert – NASA's Goddard Space Flight Center, MD
 - Priya Patel – University of California, Berkeley, CA
 - Rachel Schornak – Mayo Clinic, MN
 - Eli Temanson – Oak Ridge National Laboratory, TN
- Physics majors Kevin Slezak and Rebecca Taylor each received a Wisconsin Space Grant Consortium (WSGC) 2015 Undergraduate Research Fellowship.
- Physics majors Brandon Harris (Mentor: Dr. Taviare Hawkins) and Tanner Wolf (Mentor: Dr. Eric Gansen) each received a UWL Summer 2015 Dean's Distinguished Fellowship.
- Evan Dowling and Tobias Nelson were each awarded an Undergraduate Research & Creativity Grant.
- Xavier James was awarded a Wisconsin Space Grant Consortium 2015-2016 STEM Bridge Scholarship.
- Marcus Lowe was selected as a 2015-2016 WiSys Ambassador.
- Physics Student Presentations:
 - Brandon Harris presented at NCUR 2016 at the University of North Carolina Asheville, April 2016 .
 - Scott Erickson presented at the Chicago Cytoskeleton Meeting in March 2016, Chicago, IL.
 - Scott Erickson and Brandon Harris presented posters at the 2016 Biophysical Society Annual Conference, Los Angeles, CA, March 2016.
 - Marcus Lowe presented at the 2015 Fall Meeting of the APS Division of Nuclear Physics, Santa Fe, NM, in October 2015.
 - Tobias Nelson presented a poster at the Wisconsin Association of Physics Teachers Fall meeting, October 2015.

Any changes to the overall student mix in your college and plans for addressing these changes:

N/A

SECTION 3: STAFFING, RESOURCES, AND FACILITIES

An overview of the staffing situation for the year (hires, retirements, etc.) and any consequent changes/issues/priorities:

N/A

Any update on faculty/staff accomplishments/successes during the year that you would particularly like to highlight.

Dr. Shauna Sallmen was promoted to full Professor. Dr. Jennifer Docktor and Dr. Taviare Hawkins were both promoted to Associate Professor.

A summary of departmental scholarship and grant activity:

Published and Accepted

- **Case Study in Book-New**

Docktor, J., Sudhakaran, G. R. (2015). "Building a Thriving Undergraduate Physics Teacher Education Program at the University of Wisconsin-La Crosse: Recruitment and Retention" (pp. 97-104). College Park, MD: American Physical Society. (Submitted: September 9, 2013, Accepted: August 2014, Published: August 27, 2015).
<http://www.phystec.org/webdocs/EffectivePracticesBook.cfm>

- **Journal Article, Academic Journal**

Sorenson, B., Kernozek, T. W., Willson, J.D., **Ragan, R. J.**, Hove, J. (2015). "Two- and Three-Dimensional Relationships Between Knee and Hip Kinematic Motion Analysis: Single-Leg Drop-Jump Landings". *J Sport Rehabil*, 24(4), 363-372. (Accepted: February 2015, Published: November 2015).

Salgado, R. (2016), "Relativity on Rotated Graph Paper". *American Journal of Physics*, 84, 344-359. (Accepted: February 2016, Published: May 2016). <http://dx.doi.org/10.1119/1.4943251>

Korpela, E. J., **Sallmen, S. M.**, Greene, D. L. (2015). "Modeling Indications of Technology in Planetary Transit Light Curves -- Dark-side Illumination". *The Astrophysical Journal*, 809(2), 139-. (Submitted: September 13, 2014, Accepted: July 2015, Published: August 20, 2015).
<http://iopscience.iop.org/0004-637X/809/2/139/>

- **Journal Article, Professional Journal**

Docktor, J., Dornfeld, J., Frodermann, E., Hsu, L., Jackson, K. Allen, Mason, A., Ryan, Q., Yang, J., Heller, K. (2016). "Assessing student written problem solutions: A problem-solving rubric with application to introductory physics". *Physical Review - Physics Education Research*, 12(010130). (Submitted: May 26, 2015, Published: May 11, 2016).
<https://journals.aps.org/prper/abstract/10.1103/PhysRevPhysEducRes.12.010130>

Docktor, J., Strand, N., Mestre, J., Ross, B. (2015). "Conceptual Problem Solving in High School Physics". *Physical Review Special Topics - Physics Education Research*, 11(020106). (Submitted: September 20, 2013, Accepted: July 2015, Published: September 1, 2015).
<http://dx.doi.org/10.1103/PhysRevSTPER.11.020106>

Peters, E. E., Prados-Estevez, F. M., Chakroborty, A., Mynk, M. G., Bandyopadhyay, D., Choudry, S. N., Crider, B. P., Garrett, P. E., Hicks, S. F., Kumar, A., **Leshner, S. R.**, McKay, C. J., Orce, J. N., Scheck, M., Vanhoy, J. R., Wood, J. L., Yates, S. W. (2016). "E0 transitions in 106Pd: Implications for shape coexistence". *Eur. Phys. J. A*, 52, 96. (Published: April (2nd Quarter/Spring) 20, 2016).

Wiedeking, M., Krticka, M., Allmond, J. M., Basunia, M. S., Bleuel, D. L., Burke, J. T., Daub, B. H., Fallon, P., Firestone, R. B., Goldblum, B. L., Hatarik, R., Lake, P. T., Larsen, A. C., Lee, I. Y., **Leshner, S. R.**, Paschalis, S., Petri, M., Phair, L., Scielzo, N. D., Volya, A. (2016). "Gamma-ray decay from neutron-bound and unbound states in 95Mo and a novel technique for spin determination". *Physical Review C*, 93, 024303. (Submitted: October 21, 2015, Published: February 1, 2016).

Lyght, M., Nockerts, M., Kernozek, T. W., **Ragan R. J.** "Effects of foot strike and step frequency on Achilles tendon stress during running". *To appear in Journal of Applied Biomechanics*. (Accepted: March 2016).

"Characterizing Far-infrared Laser Emissions and the Measurement of Their Frequencies" Michael Jackson,, **Lyndon R. Zink** <http://www.jove.com/video/53399>.

- **Conference Proceeding**

Ragan, R. (2015). "Predicting Collisionless Equilibria in Dark Matter Simulations" in 2015 Proceedings of the Wisconsin Space Conference. (Published: October (4th Quarter/Autumn) 2015). <https://spacegrant.carthage.edu/ojs/index.php/wsc/issue/view/7>

Funded External Grants: New and Continued

- **Docktor, Jennifer** (Principal), **Sudhakaran, Gubbi R** (Co-Principal), "Revitalizing Physics Teacher Education at the University of Wisconsin - La Crosse" (Funded), External Grant, Sponsored by Physics Teacher Education Coalition (PhysTEC), via National Science Foundation and American Physical Society, \$152,203. (August 1, 2012 - July 31, 2015).

- **Gansen, Eric** (Principal), "RUI: Optimizing the Performance of Quantum-Dot-Based Single-Photon Detectors"(Funded), External Grant, Sponsored by National Science Foundation (NSF), \$127,879. (May 31, 2014 - May 31, 2017).
- **Hawkins, Taviare** (Supporting), Sudhakaran, Gubbi R (Supporting), King, Seth (Supporting), Jackson, Michael (Principal), "A pilot distributed REU site focused on serving physics and astronomy students from comprehensive and community colleges" (Funded), External Grant, Sponsored by National Science Foundation, Council on Undergraduate Research, Physics and Astronomy Division, \$19,913. (June 1, 2015 - August 15, 2015).
- **Leshner, Shelly R**, "Conference Participation Support Proposal - 19th Annual Conference Experience for Undergraduate; Vancouver, BC; October 12 - 15, 2016" (Currently Under Review), External Grant, Sponsored by National Science Foundation, \$25,000. (August 1, 2016 - December 31, 2017).
- **Leshner, Shelly R** (Principal), "RUI - Understanding Vibrations in Dysprosium" (Funded), External Grant, Sponsored by National Science Foundation, \$21,981. (September 1, 2015 - May 30, 2016).

Other Activities:

- Physics Department faculty members published eleven research papers in peer-reviewed journals and gave 23 presentations at national/international conferences during the 2015-2016 academic year
- Physics Department faculty members (Drs. E. Barnes, J. Docktor, E. Gansen, T. Hawkins, S. King, S. Leshner, R. Ragan, R. Salgado, and S. Sallmen) mentored 42 undergraduate students on various research projects during the 2015-2016 academic year
- Dr. G. R. Sudhakaran served as an external examiner on a physics Ph.D. thesis committee.

The status of resources and facilities with a particular emphasis on any changes, challenges, and developments during the year:

N/A

A staff development plan for the year:

N/A

SECTION 4: OUTREACH ACTIVITIES

Inclusive Excellence:

Please see Appendix I attached.

A summary of international activities and opportunities offered this year:

N/A

Information on what sorts of fundraising and community engagement activities have been attempted, and their outcomes, this year:

N/A

SECTION 5: 2016-2017

Plans and Focus for 2016-2017:

The Physics Department is planning to develop two online courses for the first time. The Department recently offered a new general education course, PHY 142 (Navigating Global Nuclear Issues), designed and developed by Dr. Shelly Leshner. Dr. Leshner is currently working on developing an online version of this course. We hope to offer this course online during the summer of 2017.

Dr. T.A.K. Pillai who designed and developed a course required for all dual degree students, PHY 320 (Statics), will be developing an online version of PHY 320 so that this required course can be offered online during the summer semester.

Providing these courses online will benefit not only UWL students but also students majoring in engineering in other institutions.

A summary of foreseeable challenges and opportunities going forward:

- The University of Minnesota is discontinuing their Dual Degree Physics/Engineering program with UWL. This will present a challenge to the Physics program so it will be important that dual degree programs are developed with other engineering colleges
- Starting in July 1, 2016, the ADA position in the Physics Department will be reduced from 100% time to 75% time. The Physics ADA will now work 25% time for the Geography Department in addition to the Physics Department responsibilities. The UWL Physics Department is one of the largest undergraduate physics program in Wisconsin and is ranked in the top five in the nation for bachelor's-only departments averaging 10 or more physics bachelor's degrees per year (American Institute of Physics). The UWL physics program has won national awards and received the first ever Teaching Excellence Award for a program at UWL from the UW System regents. The UWL physics program offers a wide variety of degree programs, a wide array of courses for its majors, and seven general education courses. The ADA position is crucial for the successful operation of the physics program and, without a full-time ADA in the Department, the program will suffer. With a new Department chair starting in July 2016, the timing of this change to the ADA position could not have been worse. We hope this arrangement is temporary and that the Department will once again have a full-time ADA position in the near future.

- As the current Chair of the Physics Department will be moving to a 50% time SAH interim associate dean position, the additional departmental workload that will flow to other physics faculty because of this staffing change will be challenging.
- Because of resource constraints, it will be very difficult for the Physics Department to open the additional lab sections (especially in the introductory physics courses) that are required to meet the needs of the students.

Suggestions for how the Dean/College Office might be of assistance in your efforts:

- In order to meet students' needs, the Physics Department may require additional resources (i.e. student teaching assistants, faculty overload payments, etc.)
- Additionally, physics faculty are heavily involved in scholarship and travel funds may be needed to allow them to present at the national conferences which specialize in their fields.

Summary of Annual Activity 2015-2016

Department of Recreation Management and Therapeutic Recreation

During the 2015-2016 academic year, the Department of Recreation Management and Therapeutic Recreation successfully earned re-accreditation by the National Recreation and Park Association Council on Accreditation of Parks, Recreation, Tourism, and Related Professions. Every seven years, this re-accreditation is a major task of the department. Along with re-accreditation, our Department faculty and staff led an ecotourism program to Australia and New Zealand in January 2016. The group of 27 students, primarily RM majors and Sustainable Business minors, reported it was one of the most unique and positive learning experiences in their lives. The development of a Tourism Research Institute is near completion. The mission of the Tourism Research Institute is to promote and support research in the areas of travel, tourism, and recreation. The Institute's focus is on the growth and impact of travel, tourism, and recreation in Wisconsin and the greater Midwest region. The Institute seeks to fulfill its mission by partnering and collaborating with public and private organizations involved in the travel and tourism industry. The Undergraduate Curriculum Committee approved program and course revisions for both the Recreation Management and Therapeutic Recreation Programs. The Recreation Management Program will continue with the generalist degree, but will also have outdoor, community, and tourism emphases. The Therapeutic Recreation Program created an admissions process to cap the enrollment into the program and courses. These revisions were a central focus of the faculty and staff in the Department during the 2015-2016 academic year. In addition to excellence in teaching and research, faculty and staff continue to conduct a great deal of service on and off campus at a variety of organizations. This may be through courses, through internship or required field experience, or through research endeavors.

Section 1: Success stories

Departmental accomplishments

Re-accreditation In September 2015, the undergraduate programs in both Recreation Management (RM) and Therapeutic Recreation (TR) successfully earned re-accreditation by the National Recreation and Park Association Council on Accreditation of Parks, Recreation, Tourism, and Related Professions. The major work of the self-study report and the external visit occurred during the 2014-2015 academic year. Every seven years, this re-accreditation is a major task of the Department.

Ecotourism Program in Australia and New Zealand Our Department faculty (Laurie Harmon) and staff (Lisa Savarese) led an ecotourism program to Australia and New Zealand in January 2016. The group of 27 students, primarily RM majors and Sustainable Business minors, reported it was one of the most unique and positive learning experiences in their lives. Faculty Dan Plunkett and Brian Kumm-Schaley will lead the course with a sustainability focus in January 2017.

Progress on Tourism Research Institute The development of a Tourism Research Institute is near completion. The mission of the Tourism Research Institute is to promote and support research in the areas of travel, tourism, and recreation. The Institute's focus is on the growth and impact of travel, tourism, and recreation in Wisconsin and the greater Midwest region. The Institute seeks to fulfill its mission by partnering and collaborating with public and private organizations involved in the travel and tourism industry. Dan Plunkett is leading this institute.

Opportunities to further utilize these accomplishments either in terms of public relations or strategic planning

Re-accreditation, Ecotourism in Australia and New Zealand, Tourism Research Institute, and the RM curricular changes (described in Section 2) are all public relations opportunities. One of the main reasons for re-accreditation is to promote UWL's program as the only accredited program in the state of Wisconsin. The Australia and New Zealand ecotourism program was featured in various venues including two Queensland newspapers, La Crosse Tribune, and UWL Campus Connection. The Tourism Research Institute is an outreach program that has public relations benefits.

In Summer 2015, the Department of Recreation Management and Therapeutic Recreation (RMTR) was the featured department in the College of Science and Health's newsletter. Accomplishments and plans for the future were highlighted. Additionally Guy Herling, along with Gretchen Newhouse and Boon Murray, wrote an excellent companion piece that demonstrates the quality of the Department's internship program.

Section 2: Programming and Students

Update on program accomplishments/successes

Major Program and Curriculum Revisions for both Undergraduate Recreation Management and Therapeutic Recreation Programs The Undergraduate Curriculum Committee approved major program and course revisions for the RM Program. The RM Program will continue with the generalist degree, but will also have outdoor, community, and tourism emphases. The Undergraduate Curriculum Committee also approved program revisions for the TR Program. One of those major revisions was a new TR Program admissions process to cap the enrollment into the program and courses. These revisions (described in more detail below) were a central focus of the faculty and staff in the Department during the 2015-2016 academic year.

Update on new programs and changes to existing programs

Other than re-accreditation for both RM and TR, the most noteworthy developments in the Department might be successful changes to existing programs. These include:

- **Undergraduate Recreation Management Program changes** In Spring 2016, the Undergraduate Curriculum Committee approved major program and course revisions for the RM Program. The RM Program will continue with the generalist degree, but will also have outdoor, community, and tourism emphases. The RM Program faculty and staff successfully received a UWL Curricular Redesign Grant for \$25,000 to assist with their efforts.

- **Undergraduate Therapeutic Recreation Program changes** In Spring 2016, the Undergraduate Curriculum Committee approved program revisions for the TR Program. One of those major revisions was a new TR Program admissions process to cap the enrollment into the program and courses. In addition to the admissions process, discussion has begun about eliminating any redundancy within the curriculum, seeking any possible efficiencies from combining course offerings, or covering multiple student learning outcomes in a single course. This step coincides with a recommendation of the re-accreditation visitors. Also fewer required courses would help the TR faculty handle the high enrollment in the program.
- **Graduate Recreation Management Program changes** The graduate faculty and staff are in the early stages of investigating an online graduate program or specific courses that may be taught on line. We have completed a needs assessment involving professionals working in Wisconsin for an online program. The results have indicated a need for developing an on-line program or online courses. Additionally, Jearold Holland will vacate the RMTR Director of Graduate Programs position. Beginning in August 2016, Kate Evans will be the new director. Evans will examine the Annual Program Review and Annual Report along with meeting with faculty and University Graduate Director, Steve Simpson, to determine new program initiatives.
- **Graduate Therapeutic Recreation Program changes** Beginning in Fall 2016, TR graduate students without backgrounds in TR will only be admitted during the Fall semesters. A new required graduate course, RTH 702: Foundations in Therapeutic Recreation, was developed that allowed TR students without backgrounds not to complete as many prerequisite courses as part of their graduate studies. This directive has aided students to complete the program earlier. The Comprehensive Examination, as a program requirement was eliminated in Spring 2016.

Programs requiring additional monitoring or redesign

A couple of programmatic elements deserve additional monitoring. They are:

- **Undergraduate Recreation Management Program emphases** Since the Undergraduate Curriculum Committee approved major program and course revisions for the RM Program as mentioned previously, the RM Program will continue with the generalist degree, but will also have outdoor, community, and tourism emphases. There is one clear difficulty which is created by the Department's breadth of degree offerings, specialized curriculum, and commitment to mentoring: it is difficult to fulfill the curricular requirements of multiple emphases. The large number of different courses necessary for distinct emphases, combined with a commitment to one-on-one mentoring and significant internship oversight requirements, may stretch existing faculty thin, and pressure exists to attract, retain, and expand the number of RM majors and minors. Within the limitations of college and university budgets, it may not be easy to maintain the high level of success within the program. These programmatic elements deserve additional monitoring.

- **Undergraduate Therapeutic Recreation Program revisions** As mentioned previously, the Undergraduate Curriculum Committee approved program revisions for the TR Program. One of those major revisions was a new TR Program admissions process to cap the enrollment into the program and courses which will be discussed further in this section. With the retirement of Susan 'Boon' Murray, the childlife emphasis will no longer be offered after her retirement in August 2016.

Non-curricular programs and an analysis of the strengths and weaknesses of the programs

The recent re-accreditation report noted strengths and weaknesses as identified by external reviewers. Of 47 standards, the Department met 41 (a range of topics, including mission statement, quality of instructional staff, institutional support of Department). Five (5) standards were partially met, and one (1) was unmet. The unmet standard was a chair full time in the Department (Steve Simpson was only 50% in the department). In January 2016, the Department has a new chair (Gretchen Newhouse) who is 100% in the Department. The partially met standards involved:

- Recently updated strategic plan with explicit completion dates of goals/objectives
- Involvement of students in curricular decisions
- Involvement of practitioners in curricular decisions
- Most recent assessment results on website
- Presentation of most recent assessment results and curricular changes as a result of assessment

Update on students' accomplishments/successes (this is information from last year)

As always, students in Recreation Management and Therapeutic Recreation conduct a great deal of service. This may be through courses, through internship or required field experience, or through research.

Examples of community-based class projects include:

- REC 300 Program Planning in Recreation: Students complete various community events in collaboration with organizations as part of their education.
- REC 306 Environmental Ethics, Outdoor Recreation and Natural Resources: Students engaged in a day-long community service learning project with the Mississippi Valley Conservancy to remove invasive species in the Green Coulee area.
- REC 340 Evaluation Methods Practices: Students complete various community evaluation projects in collaboration with organizations as part of their education.
- REC 400 Planning for Park and Recreation Facilities: Students worked with the Weigent Hogan Neighborhood Association and the City of La Crosse Parks & Recreation Department to gather data regarding physical and social characteristics of the area near Weigent Park. The semester project involved gathering and analyzing community data along with skills learned throughout the semester regarding park planning. For their final project, they proposed options for the remodeling/revitalization of Weigent Park based on this information and presented their proposals to community representatives.
- RTH 250 Introduction to Therapeutic Recreation: Students planned special events for the La Crosse Housing Authority by facilitating arts and crafts programs or casino nights for the residents living within the community.

- RTH 476 Assessment & Treatment Planning: Students facilitated an Assessment Clinic in collaboration with the La Crosse Housing Authority, where students could practice administering TR assessments with residents (some of which had disabling conditions).

Each individual community-based class project may not be significant unto itself, but the examples mentioned here show the Department's overall commitment to experiential education and service learning.

In addition to class-related group projects, individual students have made worthwhile accomplishment over the past year. Examples are:

- Student Alissa Owen's graduate TR project "Therapeutic Cooking: Increasing the life satisfaction for older adults in long-term care" was accepted for publication to the American Journal of Recreation Therapy.
- Graduate students Brett Anderson, Katherine Mabery, and Taylor Vieau (TR) successfully received grants to become a Certified Inclusivity Assessor to promote physical and social inclusion. These students shared the grant to complete Inclusion U's at Suny Cortland ten-hour online training to become a Certified Inclusivity Assessor and contributed two assessments of recreational venues to an online database.
- TR graduate student Jennifer Larson received a grant to create the Ranch Rhythm program using drums and rhythm instruments in a therapeutic and purposeful manner for adults with intellectual and/or physical disabilities. This program took place once a day as part of a week-long camp session at Joy Ranch. The participants were adults ages 21 to 90 with varying abilities and disabilities from group homes around the Midwest. The program was based on curriculum from HealthRHYTHMS, as this student attended a HealthRHYTHMS Basic Facilitator's Training. The program was aimed to improve the quality of life for the participants by encouraging social interaction, self-expression, and exercise and movement. During the five, hour-long sessions, games and activities were led by the facilitator using the drums and rhythm instruments in a variety of ways. At the end of the program, an evaluation was done to take into consideration how to improve the program for the future.
- Kayla Guanella, TR graduate student, received a grant to complete a project with the La Crosse Special Recreation Department titled, "An Implementation of a Team Building Program with Participants in Special Recreation," which was presented at the UWL Celebration of Student Research & Creativity.

Changes to the overall student mix and plans for addressing these changes

- **Undergraduate Therapeutic Recreation Program enrollment management plan** The number of undergraduate students who want to major in TR has grown dramatically to over 300 students. As mentioned previously, a new TR Program admissions process was approved to cap the enrollment into the program and courses. The TR Program will monitor the plan for 1) actually managing enrollment and 2) making sure criteria are fair to all students.
- **Undergraduate Recreation Management Program enrollment management plan** Equally important, the number of undergraduate students majoring and minoring in Recreation Management reached a low about a year or so

ago and is beginning to rise again (bottomed out around 80 and now approaching 100). Based on re-accreditation report, student, internship site supervisor, and professional advisory board feedback, RM faculty & staff redesigned the curriculum to respond to professional developments in the field and also to attract more RM majors and minors. The RM Program will continue with the generalist degree, but will also have an outdoor, community, and tourism emphases. Massive marketing efforts included new brochures, updated website, new table displays, creative stickers, information tables around campus, etc. to recruit more students to the major and minor.

- **Graduate RMTR Programs** At the graduate level, the programs are experiencing similar trends to their respective undergraduate programs. The numbers remain steady at approximately 20 new students each fall. In the past, the makeup of those 20 students was predominately Recreation Management, with as few as two students majoring in TR. For a third year, new TR graduate students actually exceeded new RM graduate students. In addition to investigating the online RM Graduate Program, the RMTR Graduate Programs are marketing through an on-line international recruitment tool called Keystone Academic Solutions for the 2016-2017 school year in conjunction with the UWL MBA and Business majors.

Section 3: Staffing, Resources and Facilities

Staffing The Department has great potential in the next half dozen years. Recent hires have been excellent, and positive changes will occur as new staff members become acclimated to UW-L. The only threat to this promising future is the need to fill current and upcoming tenure track vacancies.

Staffing changes for 2015-2016 and into 2016-2017 are:

- Laurie Harmon was promoted to Associate Professor. She will go up for tenure in Fall 2016.
- Sara Moore resigned as a full-time, long-term IAS at the end of August 2016, but will continue teaching one online TR course in Fall 2016.
- Wayne ‘Tommy’ Means resigned as a full-time, one-year IAS at the end of the Spring 2016 semester to begin Ph.D. studies.
- Steve Simpson resigned as Department Chair at the end of December 2015. He serves 50% for the University, but as Director in the Office of Graduate Studies. Gretchen Newhouse earned reassigned time for Department Chair-in-training in Fall 2015. She began as department chair in January 2016.
- Susan ‘Boon’ Murray (currently undergraduate TR Internship Coordinator, former TR Program Director) will retire at the end of the August 2016. To help with the transition, Nancy Richeson was TR Program Director for the 2015-2016 school year. Tara Delong was TR Internship Coordinator-in-training in Spring 2016 and will assume the role of coordinator beginning Fall 2016.
- Brian Kumm-Schaley (RM) and Kari Kensinger (TR) will begin tenure track faculty positions in Fall 2016.
- The Department had a failed search for a tenure track TR faculty member in Fall 2015

With the failed tenure track faculty search in Fall 2015 and Moore’s IAS resignation, **the Department currently has two TR vacancies, one tenure track faculty and one IAS.**

Scholarship and Grants Earlier in this report it was suggested that the influx of new and enthusiastic faculty will lead to positive changes for the Department. This statement was referencing the future, but there already have been improvements – as evidenced by a slight increase in scholarly activity over the last couple of academic years. The faculty and staff published five (5) refereed articles, six (6) non-refereed articles, and four (4) book chapters. They made 20 professional presentations, acquired just over \$70,000 in research/service grants, and obtained \$31,342 in teaching improvement grants. Brian Kumm-Schaley (RM) and Kari Kensinger (TR) will begin tenure track faculty positions in Fall 2016. Both new faculty will have an early start in August with funds to support their grant writing endeavors. See Appendix A for details on individual faculty members' scholarship.

Resources The Department is able to function on its current budget.

Facilities In terms of space, RMTR is in relatively good shape now, but there are four issues that may be problems in the future. In order of concern, they are:

1. *Adequate gymnasium space for the department's handful of courses that require a large open area.* RMTR used the Wittich gyms; however, with the course changes, RMTR will no longer need large open space as often. The Department will likely compete for space in the heavily used Mitchell Hall gyms and across campus.
2. *Classroom space.* Three or four institutions (WTC, UW-L, Gundersen, La Crosse Schools) biannually negotiate for classrooms in the Health Science Center. While collegial, it is difficult to schedule courses certain times of the day.
3. *Storage.* RMTR has one storage area, which is filled with wheelchairs (for class use) and camping equipment. Even when the Department has the funding for certain pieces of equipment, the chair sometimes rejects a request to purchase because the Department has no place to store large items.
4. *Faculty and staff have outgrown the Department's suite of offices on the 2nd floor of the Health Science Center.* The two offices on the 4th floor and the GA suite (Room 049) in the basement should cover our long-term needs, although the GA suite historically has been used by the Biology Department. Each year, Biology (i.e., Brad Seebach) and the RMTR chair renegotiate the best use of Room 049. Our department does not have office space for GAs. This lack of office space often times makes it challenging for a GA to successfully complete tasks as assigned by their supervising faculty or IAS.

Staff Development Plan for the Year The nationwide shortage of faculty in TR has an effect on the Department. The Department Chair and the TR faculty are developing an alternate plan if they are not able to fill these vacancies (see Plan B below in Section 5). Some the Department's travel funds will be available for staff development (tenure track usually use funds to present at a conference; IAS are more likely to use travel funds specifically for faculty development).

Section 4: Outreach Activities

Inclusive Excellence opportunities, events, and ideas put forward during the year

TR continues to teach a wide range of courses about providing recreation services to people with disabilities. In addition, Susan 'Boon' Murray heads the child-life emphasis courses for the University, and Nancy Richeson is part of the University's gerontology group.

A summary of international activities and opportunities offered this year

As mentioned previously, our Department led an ecotourism program to Australia and New Zealand in January 2016. This was the first year RMTR faculty and staff led the international program. It was previously offered through the College of Business. Faculty Dan Plunkett and Brian Kumm-Schaley will lead the course with a similar sustainability focus in January 2017. Gretchen Newhouse has an interest in developing international courses and internship opportunities. She made exploratory trips to various international locations at her own expense. In January 2016, Newhouse was funded through an UWL International Development Fund Grant for travel to Costa Rica and Nicaragua. In the 2016-2017 school year, she will submit a course in Costa Rica for January 2018 for approval to the International Education Committee. Faculty Steve Simpson and Gretchen Newhouse became involved with La Crosse Friends of International Students, where community members are matched with international students and visiting scholars to offer assistance.

Fundraising and community engagement activities

As always, the students, faculty, and staff in RMTR provided many hours of off-campus service. This includes faculty serving on recreation-related boards (e.g., Onalaska Recreation and Park Board, Mental Health Coalition of the Greater La Crosse Area, Wisconsin Conservation Corps, Landscape Architecture Alumni Advisory Board, Northeast Recreation Research Symposium) and making service presentations in the community. All undergraduate and most graduate students provide 50-100 hours of service, then complete a full semester internship in a recreation-related agency. Students, through their employment, volunteerism, internships, and service learning opportunities, work at dozens of agencies in the Coulee region (e.g., Boys and Girls Club, Hillview, La Crosse Housing Authority, Chileda, YMCA, Mississippi Valley Conservancy, La Crosse Parks & Recreation).

Section 5: 2016-2017

Plans and focus for 2016-2017

Re-accreditation Through the National Recreation and Park Association Council on Accreditation of Parks, Recreation, Tourism, and Related Professions, the Department will continue with submission of an annual report for continued accreditation. The Department will submit documents for re-accreditation in 2021.

Academic Program Review The Department's APR always follows one-year after the re-accreditation visit. The self-studies of four separate APR reports for the undergraduate and graduate programs were submitted in June 2016. Both the RM and the TR Graduate Programs will have external reviewers on campus in Fall 2016.

Enrollment Management RM and TR Programs will continue to monitor enrollment.

Curriculum Revision The Undergraduate Curriculum Committee successfully approved significant program and course changes for both the RM and TR undergraduate programs. The TR Program will eliminate any redundancy within the curriculum, seek any possible efficiencies from combining course offerings, or cover multiple student learning outcomes in a single course. The RM program will monitor its major changes described previously and put effort forth in marketing the generalist degree and three new emphases in outdoor, community, and tourism.

International Programs Faculty will lead the sustainability focused course in January 2017 to Australia and New Zealand. In addition to this course, a course in Costa Rica for January 2018 will be submitted for approval to the International Education Committee.

UW-Baraboo, Madison Area Technical College, and Winona State University Although not high on the Department's priority list, but remain long-term projects for the RM Program are articulation agreements with UW-Baraboo, Madison Area Technical College, and Winona State University. The discussion with these institutions halted while RM revised the program during the 2015-2016 school year.

Plan B for Therapeutic Recreation Program With the failed tenure track faculty search in Fall 2015 and Moore's IAS resignation in August 2016, the Department currently has two TR vacancies, one tenure track faculty and one IAS. The Department will form an IAS search and screen in Summer 2016 with hopes of a successful hire to begin in Fall 2016. The Department will optimistically go into the Fall 2016 tenure track faculty search and screen with the assumption that a solid person will be hired for the available vacancy. However, the TR faculty will develop a backup plan if the search again fails which would include eliminating any redundancy within the curriculum, seeking any possible efficiencies from combining course offerings, or cover multiple student learning outcomes in a single course.

Tourism Research Institute The Tourism Research Institute will be established. The Institute will seek consultants across academic disciplines at UWL and other institutions and also public and private organizations involved in the travel and tourism industry to fulfill its mission.

A summary of foreseeable challenges and opportunities going forward

Successful search and screens in both RM and TR may be the most significant challenge/opportunity for the 2016-2017 academic year. The opportunity is having a very large contingent of new people with fresh ideas. After the departures of Boon Murray and Steve Simpson, Jearold Holland and Gretchen Newhouse remain the only two tenured faculty members in the Department. With both the tenure track faculty and IAS, the Department has strong people with limited experience at UWL, and the upcoming searches will result in even more staff with limited UWL experience. The challenge is to attract more topnotch faculty members, especially in TR (where previous searches have failed). Nationally, there is a shortage of students pursuing the Ph.D.'s in TR. Coupled with the expected retirement of many TR faculty and a competitive job market offering higher salaries, it has become more difficult to hire tenure track positions in TR. As this occurs, it could impact the continuation of the TR Undergraduate and Graduate Programs.

The second major challenge is addressing the large demand for the undergraduate TR major. The Department cannot serve well all of the qualified students who want to major in TR, so the enrollment management plan must be monitored.

Suggestions for how the Provost and Associate Vice Chancellors might be of assistance in your efforts

The Department would appreciate continued support and patience in filling TR tenure track positions. The previous Provost helped by allowing our searches to include Associate Professors (not just assistant professors). Any other ways (e.g. salary, contract length) to make the vacancies more attractive would be appreciated.

In terms of TR faculty, a grow-our-own concept has occasionally come up in discussion. The Department has quality IAS in TR, and it also graduates a few promising masters students each year who go on to Ph.D. programs. The Department would welcome any incentives it could provide that would encourage UWL affiliated TR professionals to seek terminal degrees and then return to UWL.



The McNair Scholars program at UW-L began in 2009 and serves 28 students annually, at least 50% of whom have STEM majors each year. Our objectives are to increase the number of underrepresented students of color, and low-income, first-generation students, who prepare for, pursue, and persist in graduate studies in fields leading to a Ph.D. It is funded through the U.S. Department of Education with additional financial support from the Provost and the College of Science and Health.

In the summer of 2015, we supported 10 on-campus undergraduate researchers. Three others were competitively selected for research internships: one with the Chicago Botanic Gardens, one with the University of Maryland's STAR program in Public Health, and one with Covance in Madison, Wisconsin.

In 2015-2016, we had 13 graduates, 9 of whom (69%) will begin graduate school in the fall of 2016:

- University of Florida (Sociology)
- Ball State University (Counseling Psychology)
- Boston University (Emerging Media)
- University of Northern Illinois (School Psychology)
- University of Michigan (Information Systems)
- Drexel University (Biomedical Science)
- Arizona State University (Criminology & Criminal Justice)
- George Mason University (Conflict Analysis & Resolution)
- University of Minnesota (Philosophy of Physics)

24 program alumni began or continued their graduate studies in 2015-2016. Below is a list of advanced degrees conferred to McNair alumni in 2015-2016:

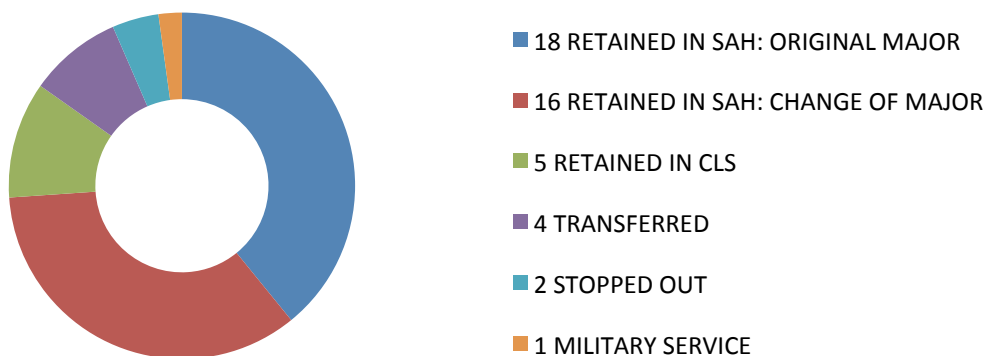
- University of Michigan: Masters of Social Work
- UW-Madison: Masters of Science in Entomology
- University of Minnesota: Masters of Public Planning, and Masters of Social Work
- Nyack College, Masters in Family Therapy
- University of Alabama: Masters of Arts in Anthropology
- New Mexico State University, Masters of Arts in Anthropology
- Texas A & M University, Masters of Science in Chemistry
- UWL, Masters of Education-Professional Development

To date, 75% of McNair alumni have enrolled in graduate programs.



The First Year Research Exposure (FYRE) program is an academic diversity initiative in the UW-L College of Science and Health (SAH) and the Wisconsin Alliance for Minority Participation. It employs an informal learning community model in order to improve achievement and retention of first-year students of color at UW-L in the STEM fields. From 2012-2016, we have served 46 eligible students, 74% of whom have been retained at UWL. In May, we celebrated our first three graduates from the FYRE program!

Retention of FYRE participants at UWL



Students each year participate in a minimum of 10 distinct research Exposure Modules, where they earned about current STEM research happening on campus and in the community. Examples include participation in UW-L's Faculty Research Day; tours of Mayo Graduate School and the Gundersen Lutheran Medical Research facilities; and visiting laboratories and field sites of UWL undergraduate, graduate and faculty researchers.

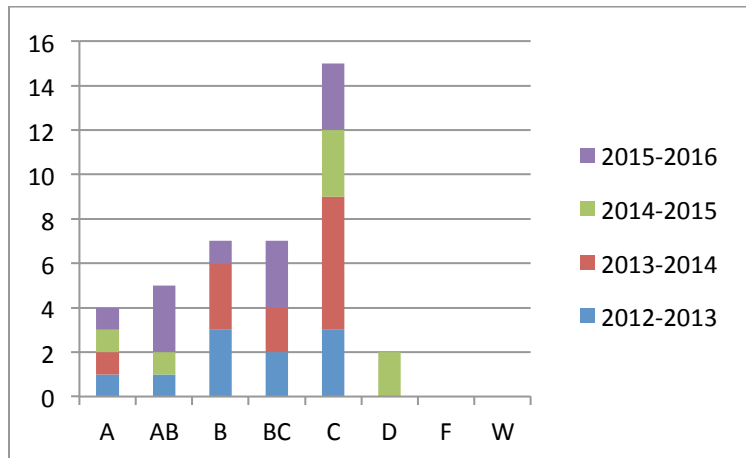
For reference, the Office of Institutional Research has calculated the completion rates for Math General Education requirements for all UW-L underrepresented students of color in their first two years as follows ranged from 18.8% for Native American students to 52.4% for Hispanic students.

From 2015-2016, FYRE students—all of whom identified as students of color--met this requirement at a rate of 81.8%.

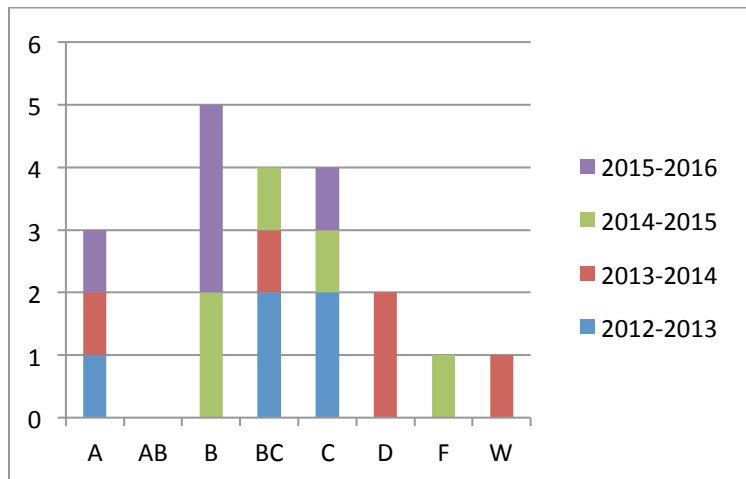
According to the Equity scorecard data compiled by OIR in the summer of 2013, completion rates for first-and second-year underrepresented students of color in Natural Lab Science General Education classes range from 36.4% for African American students to 69.4% for Hispanic students.

From 2012-2016, FYRE students—all of whom identified as students of color—passed CHM 103 and BIO 105 at a rate of 90%.

BIO 105



CHM 103



MTH 145, 150, 151

