Self-Study document for the
UNK Science/Math Education M.S.Ed. Program
Academic Program Review
April 13-14, 2015

prepared by
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1. General Program Characteristics

The University of Nebraska at Kearney (UNK) Science/Math Education M.S.Ed. Program (abbreviated Sci/Math Ed) is an interdisciplinary program designed for in-service grade 7-12 math and science teachers who wish to strengthen and broaden their background in these teaching fields. The program consists of 36 credit-hours of courses and is non-thesis based. The structure is a hybrid between that of a traditional Curriculum & Instruction Master’s program and that of a traditional math or science content Master’s program. Students take courses in a minimum of four departments, Teacher Education (TE) plus at least three from Biology (BIOL), Chemistry (CHEM), Mathematics & Statistics (MATH), and Physics & Physical Science (PHYS) while completing a 12-credit hour emphasis in one of the last four areas. A detailed degree program description is given in section 2. Initiated in the 1970’s as the Science Education M.S.Ed. Program, it served cohorts of Nebraska teachers in face-to-face classes on the UNK campus and at other sites around the state as course demand warranted. In light of dwindling enrollments through the 1990’s and 2000’s, the program was retooled as a completely online program in 2011. In doing so, MATH was added as one of the participating departments and the program was renamed Science/Math Education. Since then, administrative priorities have been the development and growth of science/math content curricula and student population base to support the offering of major emphases in all four areas along with the continuing development of assessment tools and measures. Since the 2011-2012 academic year, the number of active students has risen from 29 to 55 while credit hour production has increased from 167 to 385 (2013-14) with over 500 credit hours expected in 2014-15. This is the first Sci/Math Ed academic program review.

1.1 Accreditations

UNK is accredited by the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools (NCA). The Science/Math Education M.S.Ed. Program has special accreditations from the National Council for the Accreditation of Teacher Education (NCATE) and the Nebraska Department of Education.

1.2 Mission Statement

The mission of the Science/Math Education program is to improve classroom instruction by providing a flexible yet rigorous program of study within an area of endorsement (Biology, Chemistry, Mathematics, Physics, or Physical Science). Candidates who successfully complete the degree demonstrate in-depth pedagogical and content knowledge within their area of specialization, possess broad knowledge of content in multiple disciplines, and apply their knowledge to the curriculum in order to improve teaching and student learning.

1.3 Links to the UNK Strategic Plan

Objective 5 of the Phase I UNK Strategic Plan states that UNK will “offer graduate programs that are grounded in academic strength and the meet changing needs” and will

- Systematically assess citizens’ educational and career development needs.
- Ensure that established programs have sufficient support to sustain academic quality and relevance to the needs of the state.
- Encourage development of new programs which, within available resources, will deliver high quality instruction responding to demonstrated need.
At the campus level, UNK has established an eCampus division to provide administrative support for new and existing online programs in line with the three objective points above. In this context, the Sci/Math Ed program is particularly well-suited for addressing the needs of teachers in greater rural Nebraska and similar regions nationwide for the following reasons:

- In smaller, rural school districts, math and science teachers must often teach multiple subjects. Unlike traditional M.A. and M.S. programs, the Sci/Math Ed program requires that students take courses from multiple science/math departments, providing the opportunity for a teacher to strengthen his or her background in most or all subjects that he or she teaches.

- Many teachers in smaller, rural school districts have broad-based field endorsements without sufficient depth in any one subject for the teacher to necessarily qualify for a traditional math or science M.A. or M.S. program. At the same time, the Curriculum & Instruction M.A.Ed. programs for which these teachers would more likely qualify do not contain the math and/or science content that they may be seeking. The Sci/Math Ed program can offer more flexibility in evaluating applicants’ science/math background while providing an attractive combination of science/math content, curriculum, and pedagogy courses.

1.4 Organization Structure, Governance, and Leadership

1.4.1 Organization Structure

The Science/Math Education M.S.Ed. Degree is awarded from the UNK Graduate College with approval from the Dean of Graduate Studies (DGS). The Sci/Math Ed Program Director (PD) reports to the DGS. The Sci/Math Ed Program is housed in the College of Natural & Social Sciences which is overseen by the Dean of Natural & Social Sciences (DNSS). There are no dedicated faculty/staff positions or office/classroom space dedicated to the Sci/Math Ed program. Because the PD happens to be a Professor of Chemistry, the CHEM department provides office space and donates secretarial support. Course support and instruction is provided by the Chairs and faculty of the BIOL, CHEM, MATH, and PHYS departments who report to the DNSS. In a similar fashion, TE course support and instruction is provided by the Chair and faculty of the TE department who report to the Dean of the College of Education (DCE). The DCE also provides institutional internal approval for all matters pertaining to NCATE and Nebraska Department of Education accreditation.

1.4.1.1 Changes to the Organization Structure since 2010

The original Science Education M.S.Ed. Program was housed in the Department of Biology and the Chair of that department was in the approval chain-of-command above the PD. Upon retooling into a completely online program in 2010, MATH was added as a participating department and emphasis area, and the program was renamed Science/Math Education. In the summer of 2012, the program was removed from the Department of Biology and established as a stand-alone interdepartmental program with the PD reporting directly to the DGS.

1.4.2 Governance

The legislative body of the Sci/Math Ed program is the Graduate Program Committee (GPC) that consists of five members, one from each of the participating departments. Members are appointed on an
annual basis by the DGS with terms running from May 1 – April 30. GPC memberships are uncompensated faculty service positions. Current GPC members are:

- Christopher Exstrom (GPC Chair, Sci/Math Ed PD & Professor of Chemistry)
- Pari Ford (Assistant Professor of Mathematics)
- Julie Shaffer (Professor of Biology)
- Jane Strawhecker (Professor of Teacher Education)
- Kenneth Trantham (Associate Professor & Chair, Dept. of Physics & Physical Science)

In addition to approving all program curricular, administrative, and assessment policy, the GPC serves as the evaluating committee for applications for admission into the program and all students’ comprehensive exams taken prior to graduation. Each GPC member also serves co-academic advisor (along with the PD) to each student in their respective emphasis area and is the liaison to their respective departments for communicating information about and developments in the Sci/Math Ed program.

1.4.3 Leadership

The Program Director (PD) manages the day-to-day operations of the program. Since it went online the program has had two directors:

- Kerri Farnsworth-Hoback, Associate Professor of Biology (2010-2012) – resigned her UNK faculty position in July 2014
- Christopher Exstrom, Professor of Chemistry (April 2012 – present)

There is no faculty workload credit – the current PD teaches 9 workload hours per week (which translates into 11-12 contact hours because of 2/3 credit given for chemistry labs), which is in line with the UNK faculty workload policy for scholarly active faculty members. The PD does receive an overload stipend equal to 7.5% of his annual faculty base salary. This is paid in a 9-over-12 month fashion. Duties and responsibilities of the PD include the following:

- Approve degree program change and advancement paperwork (Change of Program of Study, Candidacy applications, and Completion of Comprehensive Exam)
- Evaluate and approve course transfers from other institutions
- Coordinate the admission application process. The PD distributes application materials to the GPC and provides a background summary and application recommendation for each candidate.
- Manage the Sci/Math Ed differential tuition expenditure account and all associated paperwork
- Coordinate the delivery of comprehensive exams. This includes the compiling and delivery of written test questions (usually to remote proctors) and collection of answers, and scheduling of the written and oral tests
- Serve as co-academic advisor for all Sci/Math Ed students. The PD handles matters pertaining to degree program progress and more specific advising about online CHEM courses.
• Serve as the webmaster for the Sci/Math Ed website: http://www.unk.edu/academics/science-math-ed

• Work with the UNK eCampus office to develop and implement marketing initiatives (see section 5.4)

• Contact prospective students (218 between April 2012 and January 2015) in response to direct inquiries and leads provided by the UNK eCampus office and the University of Nebraska Online Worldwide office. Many of these contacts lead to extended phone or e-mail exchanges.

2. Degree Program and Curriculum

2.1 Sci/Math Ed Degree Program Structure

The degree program is divided into two sections, Professional Components and Academic Components. Each of these is divided into three categories:

A. Professional Components (9 hours required)
   1. Curriculum Course (3 hours)
      - BIOL 876 Natural Science Curriculum - 3 hours
   2. Research Course (3 hours)
      - TE 800 Educational Research - 3 hours
   3. Pedagogy Course (3 hours) Take 1 course from:
      - TE 804 Curriculum Development in Multicultural Education - 3 hours
      - TE 807P Multiple Intelligences: Theories Into Practice - 3 hours
      - TE 812P Alternative Assessments of Student Performance: Theory Into Practice - 3 hours
      - TE 886P Technology Tools for Teachers - 3 hours

B. Academic Components (27 required)
   1. Major Emphasis (12 hours)
      - 12 hours in an area of endorsement (Biology, Chemistry, Mathematics, or Physics/Physical Science)
   2. Supporting Courses (9 hours)
      - A minimum of 9 hours in Biology, Chemistry, Earth Science, Mathematics, Physics, or Physical Science outside the major emphasis. Courses must be taken in at least two disciplines. These courses will be selected to meet student needs as indicated by previous course work and teaching duties.

   3. Electives (6 hours)
      - Approved by the advisor prior to enrollment by the student

Additional, degree candidates must complete a Comprehensive Exam that consists of written and oral portions. Exam questions are determined by the GPC and may cover topics from the major emphasis, supporting courses, pedagogy, and research. The written exam is administered by a proctor (identified by the candidate). The GPC conducts the oral exam in person or by conference phone; the oral exam may include questions designed to follow up on written answers but may also introduce new questions as necessary to judge the candidate’s knowledge.
2.2 Courses taught

There are five departments that contribute online graduate courses to the Sci/Math Ed program. Courses that Sci/Math Ed students have taken since the fall 2011 semester are listed below by department. Full course descriptions can be found in the UNK Graduate Catalog:

http://aaunk.unk.edu/gradcatalogs/current/crs/crstoc.asp

**Biology (BIOL).** Because of their large online Biology M.S. program, the BIOL department offers numerous content classes for which Sci/Math Ed students are eligible to take. Traditionally, the required curriculum course, BIOL 876 (Natural Science Curriculum), has been taught out of the BIOL department. However, the one faculty member qualified to teach the course has resigned her UNK faculty position and the BIOL department is unable to replace her with a biology education faculty member. Relocation of this or a similar curriculum course to another department is area of concern for the Sci/Math Ed program moving forward and is discussed in Section 9.

- BIOL 802 - Organic Evolution - 3 hours
- BIOL 804 - Evolution of Epidemics - 3 hours
- BIOL 811 - Scientific Illustration - 3 hours
- BIOL 813 - Issues in Bioethics - 3 hours
- BIOL 815 - Great Plains Heritage - 3 hours
- BIOL 820 – Introduction to Graduate Studies – 3 hours *(starting in fall 2015, Sci/Math Ed students are no longer eligible to take this)*
- BIOL 823 - Environmental Biology - 3 hours
- BIOL 824 - Principles of Ecology - 3 hours
- BIOL 827 - Biological Statistics - 3 hours
- BIOL 828 - Human Evolution - 3 hours
- BIOL 829 - Ecological Anthropology - 2 hours
- BIOL 830P - Special Topics in Biology - 1-3 hours
- BIOL 834 - Conservation Biology - 3 hours
- BIOL 836 - Biology of Size - 3 hours
- BIOL 838 - Essential Human Anatomy - 3 hours
- BIOL 839 - Human Physiological Systems - 3 hours
- BIOL 840 - Infectious Diseases - 3 hours
- BIOL 845 - Forensic Biology - 3 hours
- BIOL 846 - Cancer Biology - 3 hours
- BIOL 853 - Genome Evolution - 3 hours
- BIOL 854 - Biological Application of GIS - 3 hours
- BIOL 857 - Human Histology - 3 hours
- BIOL 861P – Human Genetics – 3 hours
- BIOL 863 - Biological Perspectives - 3 hours
- BIOL 866 - Functional Morphology - 3 hours
- BIOL 869 - Conservation of Birds and Mammals - 3 hours
- BIOL 870 - Insect Biology - 3 hours
- BIOL 876 - Natural Science Curriculum - 3 hours *(is the required curriculum course in the Sci/Math Ed program)*
- BIOL 881 - Current Issues in Biology - 1 hour *(may only be used in the Electives category)*
- BIOL 883 - Aquatic Trophic Ecology - 3 hours
- BIOL 884 - Freshwater Management Techniques - 3 hours
- BIOL 886 - Sexual Selection - 1 hour
- BIOL 887 - Fisheries Ecology - 3 hours

**Chemistry (CHEM).** Since its first online graduate course in 2007, the CHEM department expanded its offerings to support a full 12-hour emphasis in 2011 and has recently established a more extensive course rotation shown below.

- CHEM 805 - Chemical Management & Safety for HS Teachers - 1 hour (summer of odd years)
- CHEM 810 - Environmental Chemistry for High School Teachers - 3 hours (summer of even years)
- CHEM 820 - Inorganic Chemistry I for High School Teachers - 1-4 hours (spring of odd years)
- CHEM 821 - Inorganic Chemistry II for High School Teachers - 1-4 hours (spring of even years)
• CHEM 855 - Biochemistry for High School Teachers - 3 hours (summer of even years)
• CHEM 864 - Analytical Chemistry for High School Teachers - 3 hours (fall of odd years)
• CHEM 899 - Special Topics - 1-3 hours
  (Organic Chemistry for High School Teachers, 3 hours, summer of odd years
   Chemical Kinetics for High School Teachers, 2 hours, summer of odd years)

Mathematics (MATH). Formerly a participating department in the online Curriculum & Instruction
M.A.Ed. program, due to staffing and workload issues, the MATH department discontinued online
course offerings but started developing new courses for the Sci/Math Ed program for the summer 2014
term. All courses are listed under the MATH 871 Topics in Math heading and are currently offered
during the summer. To date, 15 credit hours of courses have been developed.
  • MATH 815 – Topics in Discrete Mathematics for the Secondary School Teacher – 3 hours (offered summer 2012)
  • MATH 871 - Topics in Math - 3 hours
    (Modern Algebra with Geometry, offered summer 2014
     Topics in Difference Equations, offered summer 2014
     Mathematical Knowledge for Teachers, offered summer 2014
     Algebraic Geometry, to be offered summer 2015
     Current Research in Math Education, to be offered summer 2015)

Physics & Physical Science (PHYS). The PHYS department has established a 6-course/4-year rotation –
one course every summer and one course every other fall semester -- which is sufficient to support a
combined physics/physical science emphasis area and enable students in this area to finish their degree
within three years.
  • PHYS 800 - Advanced Physical Science - 3 hours (offered in fall 2013)
  • PHYS 801 - Earth Science for High School Teachers - 3 hours (offered in summer 2014)
  • PHYS 809 - Meteorology - 3 hours (to be offered summer 2015)
  • PHYS 810P - Mathematical Techniques in Physics - 4 hours (to be offered in fall 2015)
  • PHYS 811 - Astronomy for High School Teachers - 3 hours (offered in summer 2012)
  • PHYS 813 - Introduction to Analog and Digital Electronics - 4 hours (offered in summer 2013)
The following courses have been taught online in the past but are not in the current rotation:
  • PHYS 846P - Modern Physics for High School Teachers I - 4 hours
  • PHYS 847 - Modern Physics for High School Teachers II - 4 hours

Teacher Education (TE). Because of their large online Curriculum & Instruction M.A.Ed. program, the TE
department offers numerous content classes for which Sci/Math Ed students are eligible to take. TE 800
(Educational Research), the required research course, and at least one course that fulfills the pedagogy
course requirement are offered every semester and summer.
  • TE 800 - Educational Research - 3 hours
    (required for all Sci/Math Ed students)
  • TE 803 - Philosophy of Education - 3 hours
  • TE 804 - Curriculum Development in Multicultural Education - 3 hours
    (fulfills the pedagogy course requirement)
  • TE 805P - Overview of Assistive Technology - 3 hours
• TE 807P - Multiple Intelligences: Theories Into Practice - 3
  hours  (fulfills the pedagogy course requirement)
• TE 808P - Human Relations - 1-3 hours
• TE 809P - Curriculum Implementation - 3 hours
• TE 815P - The Effective Teacher: Enhancing Classroom
  Instruction - 3 hours
• TE 854 - Reading in the Content Areas - 3 hours
• TE 866 - Motivating the 21st Century Learner - 3 hours
• TE 877 - Developing Web-based Educational
  Environments - 3 hours
• TE 881 - Distance Education - 3 hours
• TE 886P - Technology Tools for Teachers - 3 hours
  (fulfills the pedagogy course requirement)
• TE 899P - Special Topics - 1-3 hour

2.3 Degrees Earned

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<th>Year</th>
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<th>MATH</th>
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2.4 Credit hours Generated

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<td>Summer</td>
<td>56</td>
<td>160</td>
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<td>TOTAL</td>
<td>167</td>
<td>288</td>
<td>387</td>
<td>285</td>
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</table>
3. Student performance measures

3.1 Assessment Learning Goals and Objectives

All UNK departments and programs are required to submit annual assessment reports via WEAVEonline to the UNK Director of Assessment who reports to the Senior Vice-Chancellor of Academic & Student Affairs. For the Sci/Math Ed program, the PD is responsible for compiling and submit the reports. Results are distributed to the GPC for discussion of possible curricular and administrative policy changes.

In the Sci/Math Ed program assessment structure, there are five learning goals and five student learning objectives:

- **Goal 1 – Content Knowledge.** Candidates demonstrate in-depth knowledge of their area of emphasis.
- **Goal 2 – Supporting Areas.** Candidates relate content from supporting science/math disciplines to their area of specialization.
- **Goal 3 – Pedagogy.** Candidates demonstrate in-depth knowledge of pedagogical methods to help all students learn.
- **Goal 4 – Pedagogical Content Knowledge.** Candidates apply their pedagogical content knowledge to the development of curriculum that facilitates student learning.
- **Goal 5 – Reflection.** Candidates make data-driven decisions about their instructional practice.

- **Student Learning Objective (SLO) 1** – Candidates can apply the major concepts, principles, theories, and laws of their field of specialization in completing the oral and written comprehensive exam. **Assessment tools:** Comprehensive Exam, Employer Survey*

- **SLO 2** – Candidates can synthesize the interrelationships between concepts and processes in their field of specialization and those of other science/math fields in completing the written and oral comprehensive exam. **Assessment tools:** Comprehensive Exam, Exit Survey

- **SLO 3** – Candidates can apply appropriate mathematics and statistics concepts to science topics. **Assessment tools:** Comprehensive Exam, Capstone Project*, Employer Survey*

- **SLO 4** – Candidates can evaluate current theories related to pedagogy and learning. **Assessment tools:** Comprehensive Exam, Capstone Project*, Employer Survey*, Exit Survey

- **SLO 5** – Candidates can apply a variety of research-based instructional strategies to promote student learning. **Assessment tools:** Capstone Project*, Employer Survey*, Exit Survey

*currently in development

3.2 Description of Assessment Tools

**Comprehensive Exam.** The format of this is described in Section 2.1. The GPC serves as the evaluating body for the exam and assesses candidates according the rubric shown on page 35.

**Exit Survey.** This measures student values regarding their perceptions of the Sci/Math Ed program quality and its impact on furthering students’ understanding of math/science content, pedagogical
techniques, and professional practices and values. This survey was developed as a common instrument to be used by all UNK online graduate programs that include a teacher education component and was first implemented in the fall 2012 semester. A results summary is given in Section 3.3.

**Capstone Project (in development, plan to initiate in fall 2016).** This will likely take the form of a 3-credit course (SMED 888) that is designed to culminate the student’s experience in the Sci/Math Ed program by integrating educational research, curriculum design, science/math content application, and assessment. Based on a literature evaluation of a specific concept or problem in science/math teaching, the student will develop a new curricular unit, or redesign an existing one, to be implemented in a high school or middle school science/math course that the student is teaching that semester. This unit must apply science/math content from the student’s Major Emphasis category courses and the student must assess the impact of the new/revised unit on student learning. An assessment rubric has been developed and is shown on page 36.

**Employer Survey (in development, initiation date TBD).** This is a common instrument that is being developed in conjunction with all UNK online graduate programs that include a teacher education component. The survey will be completed by employers (presumably department heads, principals, and superintendents) of teachers who graduated from the Sci/Math Ed program and will cover matters pertaining to learning environments, content knowledge, assessment, planning for instruction, instructional strategies, professional learning and ethical practice, and leadership and collaboration.

### 3.2.1 NCATE Assessment Plan Format

As stated in Section 1.1, the Sci/Math Ed program is accredited by NCATE. In conjunction with the other NCATE-accredited Master’s degree programs at UNK, a common NCATE assessment plan is being developed. This effort is being coordinated by the Associate Dean of the College of Education. There are six common assessments to be used by these programs:

- **Cumulative Program GPA**
- **Content Assessment – TBD by each program.** The Sci/Math Ed will likely use the Comprehensive Exam
- **Planning Assessment (Pedagogical Knowledge & Skills)**
- **Assessment and Analysis of Impact on P-12 Learning**
- **Professional Dispositions**
- **Conceptual Framework – Program Graduates’ Survey**
- **Follow-up Studies – Survey of Employers**

### 3.3 Assessment Results

Annual assessment reports are shown in appendix A. Responses and considerations are discussed in Section 9 with the other future directions and goals of the program.
4. **Institutional Contributions – overlap with Biology MS, Curriculum & Instruction MAEd Programs**

The BIOL and TE departments have generously accommodated Sci/Math Ed student enrollment demand in courses designed for the following online graduate programs in their departments:

**Online Biology M.S. Program.** Sci/Math Ed students are eligible to take BIOL content courses with the online Biology M.S. students. Exceptions consist of research and seminar-related courses and, effective in the 2015-16 academic year, BIOL 820 (Intro to Graduate Studies). BIOL 881 (Current Issues in Biology) may only count in the Electives category of the Sci/Math Ed program. We are starting to see some reciprocation from CHEM online classes designed for Sci/Math Ed students. In individual cases, the Biology M.S. program has approved students to take CHEM 810 (Environmental Chemistry for H.S. Teachers) and CHEM 855 (Biochemistry for H.S. Teachers) as electives.

**Curriculum & Instruction M.A.Ed. Program.** The TE courses that Sci/Math Ed students take for the Professional Components and Electives degree categories were developed for this program.

5. **Student Profile and Support Data**

5.1 Admissions and Retention Data

<table>
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<tr>
<th>Year</th>
<th>Applied</th>
<th>Accepted</th>
<th>Accept Rate</th>
<th>BIOL</th>
<th>CHEM</th>
<th>MATH</th>
<th>PHYS</th>
<th>Active or Graduated</th>
<th>Retention Rate</th>
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**NOTE:** 2014-15 data are incomplete and only reflect the fall 2014 and spring 2015 semesters. The summer 2015 term figures will be added to this academic year.

It is UNK policy that a graduate student’s status remains active until he or she has not taken any classes in two years. At this point, the retention data cannot support any conclusions, but these will continue to be tracked and reported on in the 2019-20 APR.

5.2 Degrees Conferred and Completion Time

<table>
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<tr>
<th>Year</th>
<th>Degrees Conferred</th>
<th>BIOL</th>
<th>CHEM</th>
<th>MATH</th>
<th>PHYS</th>
<th>2 or less</th>
<th>2.1 – 3</th>
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<td>0</td>
</tr>
<tr>
<td>2013-14</td>
<td>13</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>21</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
5.3 Sci/Math Ed Program Admission Requirements

Applications are first evaluated by the UNK Graduate Admissions Director. If the applicant meets institutional requirements (primarily that he or she has an undergraduate degree from an accredited institution and has a GPA of least 2.75 on a 4.00-point scale), the applicant is approved for non-degree status and the application is forwarded to the Sci/Math Ed GPC for program admission consideration. To enter the Sci/Math Ed program, applicants must have a Bachelor’s Degree with a teaching endorsement in Biology, Math, Chemistry, Natural Science (or “Science”), Physics or Physical Science and a standard teaching certificate or license. Applicants with middle-grades teaching endorsements (in Nebraska these cover grades 4-9) may be admitted into the program depending on their level of undergraduate science/math preparation. There is no specified minimum GPA requirement but in practice, it is expected that an applicant’s GPA in undergraduate math and science courses meets or exceeds 2.75. The GRE is not required, but applicants are required to submit a letter of intent that summarizes their teaching experience, undergraduate preparation, and applicants from outside Nebraska must describe their teaching certification/licensing requirements.

The above requirements have served well to direct the desired student audience, in-service high school and some middle school math and science teachers, to the program. Occasionally, conditions are made for admission of students who have had non-traditional routes to their current teaching positions. For example, some states will license teachers based on them having a math or science content master’s degree or passing the appropriate Praxis II subject exam. In these cases, the GPC may require these students to take TE courses, usually TE 809P (Curriculum Implementation) and TE 815P (The Effective Teacher: Enhancing Classroom Instruction), that will bring them up to speed on education principles.

5.4 Advising and Retention Efforts

Upon admission to the Sci/Math Ed program, a student is assigned one or two academic advisors, one for administrative purposes (the PD) and, if needed, the GPC representative from the student’s emphasis area. The PD serves both roles for CHEM emphasis students. For retention purposes, we rely on advisors providing timely responses to student questions. At least twice each semester, at the beginning and shortly before registration for the upcoming semester, the PD sends extensive informational announcements via e-mail to all students in the program regarding enrollment, registration, degree program milestones (including graduation), and information on upcoming courses and suggested priorities.

5.5 Recruitment Efforts

The University of Nebraska System Online Worldwide Office and UNK eCampus office extensively advertises UNK online programs in general through mailings and advertisements in trade publications, social media, and internet search engines. For marketing specific to the Sci/Math Ed program, the PD works directly with the eCampus Marketing & Communications Specialist to formulate marketing plans as well as design and distribute informational postcards and advertising for print and electronic publications. Costs are split between the Sci/Math Ed program and the eCampus office. Listed below are the Sci/Math Ed marketing actions since the spring of 2012:
• Postcard campaigns directed to:
  o All Nebraska high school math and science teachers (summer 2012 and spring 2013, 2014, and 2015)
  o 1,100 high school math and science teachers in selected regions of CA, CO, FL, KS, MT, and TX (spring 2014, 2015) from FIRSTMARK mailing list
  o National Science Teachers Association (NSTA) “active buyers” (spring 2014, 2015)
• Facebook ad (spring/summer 2014 and spring 2015)
• Google AdWords (spring 2014, 2015)
• Production of marketing video for posting on YouTube and UNK webpages (spring 2015)
• Production of 2-page program description flyer for distribution via mailings, e-mail campaigns, and conference exhibitions (spring 2015)
• E-mail campaigns directed to:
  o NSTA conference attendees (spring 2014)
  o Persons in UNK Talisma database (spring 2015)
• Print advertising:
  o NSTA The Science Teacher (spring 2015)
  o National Council of Teachers of Mathematics (MCTM) national conference program (spring 2015)
• Exhibit at the Nebraska Association of Teachers of Mathematics statewide conference (planned fall 2015)

The PD keeps a spreadsheet of all prospective student leads (218 between April 2012 and January 2015) and records the following information: prospective student name and e-mail address, state of residence, planned emphasis area, method of initial contact (Online Worldwide, UNK eCampus, or direct e-mail or phone call to the PD), special information, application term and acceptance (or rejection). Each semester, 2-4 weeks before an application deadline, the PD e-mails the leads from the last 18 months to thank them for their interest in the Sci/Math Ed program and remind them of the application deadline.

6. Faculty Matters

Members of the University of Nebraska Graduate Faculty and other UNK faculty members who have been authorized by the Dean of Graduate Students are eligible to teach UNK graduate courses. To become eligible to teach online courses, faculty members must complete a semester-long Faculty Online Training course taught by eCampus instructional designers. To develop a new online course, the faculty instructor must submit an application to the eCampus office that is approved by that faculty member’s department Chair and college Dean. Once the course is developed and the format and course features are approved by the eCampus instructional designer, the faculty member is awarded a $1,500 stipend (or $2,500 if it is his or her first new online course). At times, the Sci/Math Ed program has supplemented this stipend in order to incentivize the development of new courses in certain areas.
Demographic data for currently-employed UNK faculty who have taught Sci/Math Ed students are shown in the table below:

<table>
<thead>
<tr>
<th>Dept</th>
<th>Faculty</th>
<th>Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>Sr Lect</th>
<th>Lect</th>
<th>Full time</th>
<th>Part time</th>
<th>Male</th>
<th>Female</th>
<th>White</th>
<th>Afr Amer</th>
<th>Hisp</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>CHEM</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MATH</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PHYS</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>TE</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

6.1 Faculty vitae

Faculty information, including name, race, gender, rank, part-time/full-time status, education, professional background, and courses taught is given in Appendix B.

7. Resource Bases

In December 2010, the UNK Science Education M.S.Ed. Program was awarded a $34,405 Distance Education Program Development grant from the University of Nebraska Online Worldwide office to rename the program Science/Math Education and retool it as a completely online program. For two-and-a-half years, this grant was the sole funding source for the program. In July 2013, a differential tuition account was established for the Sci/Math Ed program.

Online class tuition rates are higher than those charged for face-to-face classes, and differential tuition is defined as the difference between the online class tuition and the in-state face-to-face class tuition. Each year the UNK campus administration establishes a “standard” graduate online class tuition rate, but individual colleges and departments may request to alter that rate for their courses. For the 2014-2015 academic year, the standard graduate online tuition rates are $269 (Nebraska residents) and $430 (out-of-state residents) per credit hour. These are adopted by the CHEM, MATH, and PHYS departments. The BIOL department has higher rates, $275 in-state and $480 out-of-state, while the College of Education (includes the TE department) uses the standard in-state rate but has a lower out-of-state rate of $393 per credit hour. Differential tuition is calculated on a per credit hour basis as follows:

<table>
<thead>
<tr>
<th>Department</th>
<th>In-state online rate</th>
<th>In-state face-to-face rate</th>
<th>In-state Differential tuition per credit hour</th>
<th>Out-of-state online rate</th>
<th>In-state face-to-face rate</th>
<th>Out-of-state Differential tuition per credit hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>$275.00</td>
<td>$216.50</td>
<td>$58.50</td>
<td>$480.00</td>
<td>$216.50</td>
<td>$263.50</td>
</tr>
<tr>
<td>CHEM, MATH, PHYS</td>
<td>$269.00</td>
<td>$216.50</td>
<td>$52.50</td>
<td>$430.00</td>
<td>$216.50</td>
<td>$213.50</td>
</tr>
<tr>
<td>TE</td>
<td>$269.00</td>
<td>$216.50</td>
<td>$52.50</td>
<td>$393.00</td>
<td>$216.50</td>
<td>$176.50</td>
</tr>
</tbody>
</table>
The generated differential tuition is split among the Online Worldwide office, eCampus, departments, and programs as determined by the University of Nebraska system President and UNK Dean of Graduate Studies. The Sci/Math Ed program receives approximately 65% of the differential tuition generated by students admitted in the program.

UNK faculty are on 9-month contracts and receive additional pay for teaching summer courses at the rate 3% of base salary per credit hour taught.

7.1 Online Worldwide Grant Expenditures

<table>
<thead>
<tr>
<th>Grant Award</th>
<th>$34,405.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECURRING STIPENDS</td>
<td></td>
</tr>
<tr>
<td>Program Director stipend (May 2012 – June 2013)</td>
<td>$6,284.88</td>
</tr>
<tr>
<td>benefits</td>
<td>$1,975.01</td>
</tr>
<tr>
<td>SUMMER COURSE INSTRUCTION</td>
<td></td>
</tr>
<tr>
<td>Trecia Markes (Summer 2013 PHYS 813, Intro to Analog &amp; Digital Electronics)</td>
<td>$3,399.99</td>
</tr>
<tr>
<td>Benefits</td>
<td>$260.09</td>
</tr>
<tr>
<td>Frank Kovacs (1/2 of Summer 2013 CHEM 855, Biochem for HS Teachers)</td>
<td>$2,613.00</td>
</tr>
<tr>
<td>Benefits</td>
<td>$838.59</td>
</tr>
<tr>
<td>Pari Ford (Summer 2014 MATH 871-03, ST: Math Knowledge for Teachers)</td>
<td>$4,363.00</td>
</tr>
<tr>
<td>Benefits</td>
<td>$1,460.54</td>
</tr>
<tr>
<td>Nickolas Hein (Summer 2014 MATH 871-01, ST: Modern Algebra with Geometry)</td>
<td>$5,058.00</td>
</tr>
<tr>
<td>Benefits</td>
<td>$1,631.44</td>
</tr>
<tr>
<td>SUPPLEMENTAL COURSE DEVELOPMENT STIPENDS</td>
<td></td>
</tr>
<tr>
<td>Annette Moser (CHEM 864, Analytical Chem for HS Teachers, paid in Feb. 2012)</td>
<td>$2,500.00</td>
</tr>
<tr>
<td>Benefits</td>
<td>$702.15</td>
</tr>
<tr>
<td>OPERATIONAL EXPENSES</td>
<td></td>
</tr>
<tr>
<td>Business cards (June 2012)</td>
<td>$47.08</td>
</tr>
<tr>
<td>MARKETING</td>
<td></td>
</tr>
<tr>
<td>NSTA active buyers mailing list (March 2013)</td>
<td>$1,784.00</td>
</tr>
<tr>
<td>NSTA e-mail blast to San Antonio conference attendees (May 2013)</td>
<td>$1,132.10</td>
</tr>
<tr>
<td>NSTA e-mail blast to St. Louis conference attendees (June 2013)</td>
<td>$416.00</td>
</tr>
<tr>
<td>TOTAL EXPENSES</td>
<td>$34,465.87</td>
</tr>
<tr>
<td>Remaining funds</td>
<td>($60.87)</td>
</tr>
</tbody>
</table>
### 7.2 Differential Tuition Account Income and Expenditures

#### 2013-2014 Academic Year + Summer

| INCOME -- Differential tuition remission from 2011-12 | $12,350.00 |
| INCOME -- Differential tuition remission from 2012-13 | $25,000.00 |

**RECURRING STIPENDS**

- Program Director stipend (July 2013-August 2014) | $6,403.80
- Benefits | $1,878.54

**SUMMER COURSE INSTRUCTION**

- Frank Kovacs (Summer 2014 CHEM 855, Biochem for HS Teachers) | $5,316.00
- Benefits | $1,756.41
- Jacob Weiss (Summer 2014 MATH 871-02, ST: Topics in Difference Equations) | $4,221.00
- Benefits | $1,347.52

**OPERATIONAL EXPENSES**

- Conference room webcam equipment for oral comp exams | $199.21

**TOTAL EXPENSES** | $21,122.48

- Remaining funds | $16,227.52

---

#### 2014-2015 Academic Year + Summer PROJECTION

| 2013-2014 funds carried forward | $16,227.52 |
| INCOME -- Differential tuition remission from 2011-12 | $33,000.00 |

**RECURRING STIPENDS**

- Program Director stipend (September 2014-August 2015) (est.) | $5,595.00
- Benefits (est.) | $1,791.00
- Total Recurring Stipends + Benefits | $7,386.00

**SUMMER 2015 COURSE INSTRUCTION (est.)**

- Haishi Cao (CHEM 899P-01, ST: Organic Chem for HS Teachers) | $5,243.00
- Benefits | $1,835.00
- Carla Kegley-Owen (CHEM 899P-02, ST: Chemical Kinetics for HS Teachers) | $2,916.00
- Benefits | $1,021.00
- Nickolas Hein (MATH 871-01, ST: Algebraic Geometry) | $5,140.00
- Benefits | $1,700.00
- Lee Powell (PHYS 809, Meteorology) | $4,699.00
- Benefits | $1,645.00
- Total Summer Course Instruction | $24,199.00

**SUPPLEMENTAL COURSE DEVELOPMENT STIPENDS**

- Nickolas Hein (Summer 2014 MATH 871-01, ST: Modern Algebra with Geometry) | $1,000.00
- Benefits (est.) | $350.00
- Jacob Weiss (Summer 2014 MATH 871-02, ST: Topics in Difference Equations) | $1,000.00
- Benefits (est.) | $350.00
Amy Nebesniak (Summer 2015 MATH 871-02, ST: Current Research in Math Educ) $1,000.00

Benefits (est.) $350.00

Nickolas Hein (Summer 2015 MATH 871-01, ST: Algebraic Geometry) $1,000.00

Benefits (est.) $350.00

Total Supplemental Course Development Stipends + Benefits $5,400.00

OPERATIONAL EXPENSES (est.)

APR self-study production and other expenses $200.00

MARKETING (est.)*

NSTA active buyers mailing list $287.50
Postcard mailing to CA, CO, FL, KS, MT, TX (FIRSTMARK mailing list) $669.25
Postcard mailing to Nebraska math & science teachers $300.00
Google AdWords $280.00
Facebook Ad $150.00
UNK Video production $150.00
NSTA The Science Teacher print ad $527.50
NCTM Boston Conference program print ad $689.50
UNK Publications & Printing design work $100.00

Total Marketing $3,193.75

TOTAL EXPENSES $40,338.75

Remaining funds $8,888.77

*Sci/Math Ed marketing expense portion shown – eCampus is providing a 1:1 match.

Comment on remaining funds. Each year, the PD solicits the GPC members for distance education-related needs that could be funded in part or fully by remaining funds in the Sci/Math Ed program budget.

Carryover funds. The large carryover of $16,227.52 from 2013-14 to 2014-15 was made with the intent to have most of it serve as a “nest egg” for the establishment of dedicated Sci/Math Ed program staff support – possibly a graduate assistant, office associate, or program coordinator. This has not materialized in light of the need to continue to develop courses and expand offerings in the CHEM, MATH, and PHYS, departments.

Resource distribution among the five participating departments. While the admissions, student advising, and marketing functions of the Sci/Math Ed program benefit all participating departments, it is clear that the vast majority of resources have been directed toward the CHEM, MATH, and PHYS departments for course development and summer offerings. This is not intended to be a permanent situation. Without the existing staffing levels and course offerings from the BIOL and TE departmental online graduate programs, it would have been impossible for the Sci/Math Ed program to grow at its present rate. In accepting the Online Worldwide grant, a proposal that the Chairs of all five participating departments signed, the UNK administration committed to developing the Sci/Math Ed program as a hybrid content/pedagogy program with sustainable major emphases in all four content areas. With BIOL and TE already at the point of sustainability, the top budget priority has been to incentivize the CHEM, MATH, and PHYS departments to reach this level. When this is accomplished – see the curricular issues discussed in Section 9 – the PD and GPC will develop a more equitable resource distribution plan.
8. Program Comparison

Unlike a traditional departmental program, where documented research publications and grants lend much to that program’s reputation and prestige, comparing online teaching programs relies solely on information gleaned from individual institutions’ websites. This is an arduous task and with the online education landscape changing on a seemingly daily basis, comparisons in quality and structure become outdated quickly. That said, over the last two years, the PD has accessed descriptions of online Science and Math Education Master’s programs from dozens of schools, and the following observations can be noted:

- Among online science and math education Master’s programs across the country, there is a fluid continuum in the ratio of science/math to curriculum/pedagogy coursework, with the vast majority of programs leaning strongly toward one side or the other. That ratio in the UNK Sci/Math Ed program (21:15 credit hours) appears to be in the intermediate region.

- Very few science education Master’s programs required or provide students opportunity to take significant coursework outside of teacher education and one specific science emphasis area. Exceptions include Colorado State’s Master of Natural Science Teaching, Northeastern State’s (OK) Science Education, and Chadron State’s Science/Math Education programs. The PD has yet to come across a program in which the curriculum includes both math and science classes.

- Math education Master’s programs are common but it is rare for any to be completely online. Regionally, the University of Nebraska-Lincoln’s M.A.T. program is establishing a presence; however, the vast majority of programs are face-to-face or blended.

- The closest comparable programs at online-only institutions (Univ. of Phoenix, Capella Univ., Walden Univ., Western Governors Univ., etc.) and similarly designed large-scale online operations at academic institutions such as Arizona State and USC are heavily weighted on the curriculum/pedagogy end of the spectrum. It is safe to say that these institutions and others that emphasize massive open online courses (MOOCs) are not direct competitors of the Sci/Math Ed program.

9. Future Direction

The development of the Sci/Math Ed program is still in the formative stages. The recent program growth as well as the level of support from the administration and participating departments are all encouraging and indicate a commitment to moving the program forward. However, a number of issues regarding assessment, curriculum, and program resources must be addressed over the next few years. Comments and suggestions by the Review Team on anything in this section is greatly appreciated.

9.1 Assessment

As discussed in Section 3, the four assessment measuring tools – comprehensive exam, capstone project, exit survey, and employer survey – are in various stages of development and implementation. Short-term efforts will focus on the completion of the capstone project development as a 3-credit course, establishing target rubrics/scores for the exit and employer surveys as well as the implementation of the employer surveys.
9.2 Curriculum

There are three issues of immediate concern regarding the Sci/Math Ed curriculum.

9.2.1 Required Curriculum Course

Currently, BIOL 876 (Natural Science Curriculum) is required of all Sci/Math Ed students. For the last two years, this course could not be offered. The one faculty member qualified to teach it went on sabbatical in 2013-14 then resigned her UNK faculty position in the summer of 2014. This forced the cancellation of the spring 2015 offering. The Biology department will not be replacing this faculty member with one who has the necessary education background to teach a curriculum/pedagogy course. Therefore, this or a similar curriculum course must now be offered by a different department. Ideas under consideration and discussion are:

- **Revival of PHYS 872P (Science Curricula) as an online course.** There is a qualified PHYS faculty member willing to teach this, but the PHYS department is very stressed for available faculty workload due to the recent replacement of several retired 12-hour teaching load faculty with new assistant professors with 9-hour teaching loads.

- **Fulfillment of this requirement with a TE course.** Currently, students are allowed to substitute TE 809P (Curriculum Implementation) or TE 810 (Design & Development of Instruction) for BIOL 876. This could be allowed to continue, but it would not be as preferable as a course coming from a science or math department.

- **Hiring of adjunct faculty.** For a course that is required of all Sci/Math Ed students, it would be preferred that it be taught by a UNK faculty member in residence. However, the hiring of an adjunct faculty member is something to be considered.

Additionally, the math education faculty have expressed an interest in offering an online math curriculum class for the MATH emphasis students. This is an excellent idea that will be explored further now that the Math department has developed several content courses.

9.2.2 Capstone Course and Comprehensive Exam

It is planned to structure the capstone project as a 3-credit course (SMED 888 – Science/Math Education Capstone) to be added as a requirement in the program. To maintain the program at 36 credit hours, it will be necessary to remove three hours from one of the degree program categories. At the time of this writing, this is under discussion by the GPC.

Additionally, integrating or merging the capstone project with the comprehensive exam is under discussion. As the program grows, the logistical and time commitments associated with the current written + oral comprehensive exam format is becoming more burdensome for the GPC. Such integration or merging may streamline the comprehensive exam process while still addressing all of the learning goals and objectives for assessment purposes.

9.2.3 Course Scheduling Patterns

With their departmental online programs, there are numerous BIOL and TE courses available every semester and summer to Sci/Math Ed students. However, the CHEM, MATH, and PHYS departments have had to create new courses to participate in the Sci/Math Ed programs. Freeing academic year
faculty workload availability has been difficult, so most of their courses are offered during the summer, which is an off-contract period for faculty. In order to reach the goal level of growth and sustainability described in Section 9.3, it will be necessary for all of the participating departments to offer at least one online course each semester. To reiterate the progress made by these three departments to this point:

- CHEM – 1 class every other fall, 1 class every spring, 2 classes every summer
- MATH – no classes during fall and spring, 2 classes every summer
- PHYS – 1 class every other fall, no classes in spring, 1 class every summer

The curriculum course situation has also created some crimping in course scheduling. BIOL 876 was offered every spring while TE 809P is offered only in the summer and TE 810 is offered every other fall semester.

Currently, it is not within the financial capability of the Sci/Math Ed program to assist with creating additional faculty workload availability during the academic year, other than possibly the occasional adjunct hiring. The PD will continue to work with department Chairs, Dean of Natural & Social Sciences, and Dean of Graduate Studies to create opportunities for additional online course offerings.

### 9.3 Program Resources and Staffing

While most UNK online graduate programs have staff support – in the form of a graduate assistant or program coordinator -- in addition to a program director, the Sci/Math Ed program has not yet hired any staff support. Instead, resources have directed toward expanding online course offerings and marketing initiatives. As the program grows, it will become necessary to hire staff support as well as assist departments in maintaining necessary course offerings for Sci/Math Ed students to progress through their degree programs. The following hypothetical annual budget reflects this goal level of sustainability:

<table>
<thead>
<tr>
<th>Goal Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RECURRING SALARIES/STIPENDS</strong></td>
</tr>
<tr>
<td>Program Director stipend (based on 7.5% of $75,000 annual base)</td>
</tr>
<tr>
<td>Benefits (35% of stipend)</td>
</tr>
<tr>
<td>0.5 FTE Program Coordinator position</td>
</tr>
<tr>
<td>Benefits (35% of salary)</td>
</tr>
<tr>
<td><strong>Total Recurring Stipends + Benefits</strong></td>
</tr>
<tr>
<td><strong>DEPARTMENT SUPPORT</strong></td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Chemistry</td>
</tr>
<tr>
<td>Mathematics &amp; Statistics</td>
</tr>
<tr>
<td>Physics &amp; Physical Science</td>
</tr>
<tr>
<td>Teacher Education</td>
</tr>
<tr>
<td><strong>Total Department Support</strong></td>
</tr>
</tbody>
</table>
### OPERATIONAL EXPENSES (est.)

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Coordinator office supplies, copying, etc.</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Coordinator phone line (12 @ $40/month)</td>
<td>$480.00</td>
</tr>
<tr>
<td><strong>Total Operational Expenses</strong></td>
<td><strong>$1,480.00</strong></td>
</tr>
</tbody>
</table>

| MARKETING                                                   | $5,000.00 |
| **TOTAL GOAL BUDGET**                                       | **$96,930.00** |

*NOTE on Department Support allocations: To this point, all department support from the Sci/Math Ed program has been in the form of summer course instructor salaries and course development stipend supplements. The amounts given here are based on the equivalent of 4.5 credit hours of summer course instruction, assuming a faculty base salary of $65,000 + 35% benefits, for each of the five participating departments. Each department would have flexibility in how these funds are spent as long the expenses can be linked to Sci/Math Ed program instruction. It is anticipated that spending patterns would likely fall along the following lines:

- Two 3-credit summer online courses with Sci/Math Ed providing half of the second course funding that is matched from the department, college, or eCampus
- One 3-credit summer online course with the remaining funds used for course development and online instruction-related equipment and facility needs.
- All funds used for course development and online instruction-related equipment and facility needs.

The total annual funds required is almost triple the 2013-14 differential tuition income ($33,000). Therefore, it will be necessary to increase the program size from 55 (current level) to approximately 165 students. With sustained marketing efforts and the addition of a few academic-year online course offerings (see Section 9.2.3), this should be achievable in the next 5 years given the current program growth rate.
Appendix A:
Assessment Reports and Documentation
Mission / Purpose

The mission of the Science/Math Education program is to improve classroom instruction by providing a flexible yet rigorous program of study within an area of endorsement (Biology, Chemistry, Mathematics, Physics, or Physical Science). Candidates who successfully complete the degree demonstrate in-depth pedagogical and content knowledge within their area of specialization, possess broad knowledge of content in multiple disciplines, and apply their knowledge to the curriculum in order to improve teaching and student learning.

Goals

G 1: GOAL 1: Content Knowledge
Candidates demonstrate in-depth knowledge of their area of emphasis. (NCATE 1a, NSTA 1, 2, 3, 4)

Connected Document
Rubric for MSST Capstone Project

G 2: Goal 2: Supporting Areas
Candidates relate content from supporting science/math disciplines to their area of specialization. (NCATE 1a, 1b; NSTA 1, 7)

Connected Document
Rubric for MSST Capstone Project

G 3: Goal 3: Pedagogy
Candidates demonstrate in-depth knowledge of pedagogical methods to help all students learn. (NCATE 1b, 1d, 3c, 4a, 4d; NSTA 1, 5)

Connected Document
Rubric for MSST Capstone Project

G 4: Goal 4: PCK
Candidates apply their pedagogical content knowledge to the development of curriculum that facilitates student learning. (NCATE 1b, 1c, 1d, 3c; NSTA 6)

Connected Document
Rubric for MSST Capstone Project

G 5: Goal 5: Reflection
Candidates make data-driven decisions about their instructional practice. (NCATE 1c, 1d, 3c; NSTA 8, 10)

Connected Document
Rubric for MSST Capstone Project

Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Outcome 1
Candidates can apply the major concepts, principles, theories, and laws of their field of specialization in completing the oral and written comprehensive exam.

Related Measures

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Connected Document
Science/Math Education Comprehensive Exam Rubric

Target:
All candidates meet or exceed expectations for all aspects of the comprehensive exam.

Finding (2011-2012) - Target: Met
The comprehensive exam rubric was implemented in the Fall 2011 semester. Four students took the
comprehensive exam. Three passed with "meets expectations" in all areas and one passed with "exceeds expectations" in all areas.

Connected Document
Science/Math Education Comprehensive Exam Rubric

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate's knowledge, teaching skill, and professional dispositions.

Source of Evidence: Employer survey, incl. perceptions of the program

Target: TBD

Finding (2011-2012) - Target: Not Reported This Cycle
The employer survey is in development.

SLO 2: Outcome 2
Candidates can synthesize the interrelationships between concepts and processes in their field of specialization and those of other science/math fields in completing the written and oral comprehensive exam.

Related Measures

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Connected Document
Science/Math Education Comprehensive Exam Rubric

M 3: Exit Survey
Exit survey given to graduates

Source of Evidence: Exit interviews with grads/program completers

Target: TBD

Finding (2011-2012) - Target: Not Reported This Cycle
The exit survey is in development

SLO 3: Outcome 3
Candidates apply appropriate mathematics and statistics concepts to science topics.

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.

Source of Evidence: Capstone course assignments measuring mastery

Connected Document
Rubric for MSST Capstone Project

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Connected Document
Science/Math Education Comprehensive Exam Rubric

M 3: Exit Survey
Exit survey given to graduates

Source of Evidence: Exit interviews with grads/program completers

SLO 4: Outcome 4
Candidates can evaluate current theories related to pedagogy and learning.

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.

Source of Evidence: Capstone course assignments measuring mastery
M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.
Source of Evidence: Comprehensive/end-of-program subject matter exam

M 3: Exit Survey
Exit survey given to graduates
Source of Evidence: Exit interviews with grads/program completers

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate's knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

SLO 5: Outcome 5
Candidates can apply a variety of research-based instructional strategies to promote student learning

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.
Source of Evidence: Capstone course assignments measuring mastery

M 3: Exit Survey
Exit survey given to graduates
Source of Evidence: Exit interviews with grads/program completers

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate's knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

Analysis Questions and Analysis Answers

Please indicate the number of graduates during the academic year, the number of majors, and/or number of minors.

32 majors 4 graduates -- 3 with emphases in physics/physical science, 1 with emphasis in biology

Briefly discuss strengths of your department/program based on your assessment data.
Our program resulted in the advancing the science content knowledge of four practicing teachers based on the results of their comprehensive exams: Three of the graduates achieved "meets expectations" in all areas of comp exam and one graduate achieved "exceeds expectations" in all areas of comp exam

Briefly discuss any areas that may need attention.
None; all targets were met.

Provide a description of when/how assessment results were shared with department/program faculty. Were the assessment results discussed at a faculty meeting or retreat? Is the entire dept./program involved in decision making related to actions to be taken based on the data?
Assessment results were shared with the program committee following each comprehensive exam. The committee is currently using the assessment results in developing the following new specific actions: exit survey, employer survey, and a capstone project.

Critically evaluate the assessment process. Did the process assess department/program learning outcomes well? Was the data gathered useful?
The data are useful in order to gauge students' overall comprehension of the program's academic content. However, further actions are needed to evaluate the students' application of their new knowledge in their teaching positions. The new specific actions being developed -- exit survey, employer survey, and capstone project -- are expected to lend insight into this. We anticipate implementation in January 2014.
Based on your assessment results, what changes has your department/program made over the last 4 years to improve student learning? Give 2-3 specific examples of the changes made.

Previously, graduating students would take their comprehensive exam in written or oral format. It was determined by the program committee that in order to properly implement the comprehensive exam rubric, written and oral responses would give a clearer understanding of students’ content and pedagogical knowledge that they gained in the program. 2011-12 was the first year students were required to take written and oral components of the comprehensive exam. Copies of the written component for each student have been uploaded. In each case, oral exam questions varied -- but always starting with follow-up questions to the written exam responses -- but each question pertained to at least one target outcome on the exam rubric. The program is continuing to develop an exit survey, employer survey, and capstone project.
Mission / Purpose

The mission of the Science/Math Education program is to improve classroom instruction by providing a flexible yet rigorous program of study within an area of endorsement (Biology, Chemistry, Mathematics, Physics, or Physical Science). Candidates who successfully complete the degree demonstrate in-depth pedagogical and content knowledge within their area of specialization, possess broad knowledge of content in multiple disciplines, and apply their knowledge to the curriculum in order to improve teaching and student learning.

Goals

G 1: GOAL 1: Content Knowledge
Candidates demonstrate in-depth knowledge of their area of emphasis. (NCATE 1a, NSTA 1, 2, 3, 4)

Connected Document
Rubric for MSST Capstone Project

G 2: Goal 2: Supporting Areas
Candidates relate content from supporting science/math disciplines to their area of specialization. (NCATE 1a, 1b; NSTA 1, 7)

Connected Document
Rubric for MSST Capstone Project

G 3: Goal 3: Pedagogy
Candidates demonstrate in-depth knowledge of pedagogical methods to help all students learn. (NCATE 1b, 1d, 3c, 4a, 4d; NSTA 1, 5)

Connected Document
Rubric for MSST Capstone Project

G 4: Goal 4: PCK
Candidates apply their pedagogical content knowledge to the development of curriculum that facilitates student learning. (NCATE 1b, 1c, 1d, 3c; NSTA 6)

Connected Document
Rubric for MSST Capstone Project

G 5: Goal 5: Reflection
Candidates make data-driven decisions about their instructional practice. (NCATE 1c, 1d, 3c; NSTA 8, 10)

Connected Document
Rubric for MSST Capstone Project

Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Outcome 1
Candidates can apply the major concepts, principles, theories, and laws of their field of specialization in completing the oral and written comprehensive exam.

Related Measures

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Connected Document
Science/Math Education Comprehensive Exam Rubric

Finding (2012-2013) - Target: Not Met
The comprehensive exam rubric was implemented in the Fall 2011 semester. Three students took the comprehensive exam in 2012-13. One passed with "meets expectations" in all areas, one passed with "exceeds expectations" in all areas, and one failed with "does not meet expectations" in some of the areas.

Finding (2011-2012) - Target: Met
The comprehensive exam rubric was implemented in the Fall 2011 semester. Four students took the comprehensive exam. Three passed with "meets expectations" in all areas and one passed with "exceeds expectations" in all areas.
For 2010-11, the rubric had not yet been developed. Two students took comprehensive exams in the 2010-11 cycle. One student passed without reservation. The other student passed with reservations regarding content details in biology and chemistry.

### M 4: Employer survey

A survey of the candidate’s employer is used to judge several aspects of the candidate’s knowledge, teaching skill, and professional dispositions.

Source of Evidence: Employer survey, incl. perceptions of the program

**Target:** TBD

**Finding (2012-2013) - Target: Not Reported This Cycle**

A common employer survey instrument for all UNK online graduate programs with a teacher education component is being developed.

**Finding (2011-2012) - Target: Not Reported This Cycle**

The employer survey is in development.

**Finding (2010-2011) - Target: Not Reported This Cycle**

The employer survey has not yet been developed.

### SLO 2: Outcome 2

Candidates can synthesize the interrelationships between concepts and processes in their field of specialization and those of other science/math fields in completing the written and oral comprehensive exam.

**Related Measures**

#### M 2: Comprehensive exam

The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.

Source of Evidence: Comprehensive/end-of-program subject matter exam

**Connected Document**

[Science/Math Education Comprehensive Exam Rubric](#)

**Target:** TBD

**Finding (2012-2013) - Target: Met**

The exit survey was taken by 2 graduation candidates. Based on the average question score of 4.15 (agree) out 5.00 (Scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree where all questions were phrased so that agreeing corresponded to positive perceptions), there is a positive perception on the part of the students regarding the knowledge and professional skills gained from the program.

**Finding (2011-2012) - Target: Not Reported This Cycle**

The exit survey is in development.

**Finding (2010-2011) - Target: Not Reported This Cycle**

The exit survey has not yet been developed.

### SLO 3: Outcome 3

Candidates apply appropriate mathematics and statistics concepts to science topics.

**Related Measures**

#### M 1: Capstone Project

Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.

Source of Evidence: Capstone course assignments measuring mastery

**Connected Document**

[Rubric for MSST Capstone Project](#)

**Target:** TBD

**Finding (2012-2013) - Target: Not Reported This Cycle**

The capstone project is in development.

**Finding (2011-2012) - Target: Not Reported This Cycle**

The capstone project is in development.

**Finding (2010-2011) - Target: Not Reported This Cycle**

The capstone project is in development.

#### M 2: Comprehensive exam

The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.

Source of Evidence: Comprehensive/end-of-program subject matter exam

**Connected Document**

[Science/Math Education Comprehensive Exam Rubric](#)

#### M 3: Exit Survey

This measures student values regarding their perceptions of the Sci/Math Ed program quality and its impact on furthering students’ understanding of math/science content, pedagogical techniques, and professional practices and values. This survey was developed as a common instrument to be used by all UNK online graduate programs that include a teacher education component and was first implemented in the Fall 2012 semester.

Source of Evidence: Exit interviews with grads/program completers

**Target:** TBD

**Finding (2012-2013) - Target: Not Reported This Cycle**

The exit survey has not yet been developed.
SLO 4: Outcome 4
Candidates can evaluate current theories related to pedagogy and learning.

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.
Source of Evidence: Capstone course assignments measuring mastery

Connected Document
Rubric for MSST Capstone Project

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.
Source of Evidence: Comprehensive/end-of-program subject matter exam

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Science/Math Education Comprehensive Exam Rubric

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Source of Evidence: Exit interviews with grads/program completers

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate’s knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

SLO 5: Outcome 5
Candidates can apply a variety of research-based instructional strategies to promote student learning

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.
Source of Evidence: Capstone course assignments measuring mastery

Connected Document
Rubric for MSST Capstone Project

M 3: Exit Survey
This measures student values regarding their perceptions of the Sci/Math Ed program quality and its impact on furthering students’ understanding of math/science content, pedagogical techniques, and professional practices and values. This survey was developed as a common instrument to be used by all UNK online graduate programs that include a teacher education component and was first implemented in the Fall 2012 semester.
Source of Evidence: Exit interviews with grads/program completers

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate’s knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

Details of Action Plans for This Cycle (by Established cycle, then alpha)

Response to failed comprehensive exam
The student who failed the comprehensive exam was assigned to develop an educational research proposal that, in theory, could be implemented in one or more of the high school classes that the student teaches. The Graduate Program Committee determined that this was the best format to address deficiencies in research techniques and applications of pedagogical methods and science content. An evaluation rubric was developed by the GPC. Upon successful completion of this proposal, the student's comprehensive exam result would be changed from "fail" to "pass". The GPC will discuss if this type of project is suitable for the capstone project in development and whether aspects of the capstone project and comprehensive exam should be integrated or merged.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High

Analysis Questions and Analysis Answers

Please indicate the number of graduates during the academic year, the number of majors, and/or number of minors.

44 majors, 2 graduates -- both with emphases in chemistry

Briefly discuss strengths -- your department/program based on your assessment data.
Our program resulted in the advancing the science content knowledge of two practicing teachers based on the results of their comprehensive exams: one of the graduates achieved "meets expectations" in all areas of comp exam, and one graduate achieved "exceeds expectations" in all areas of comp exam.

Results from the exit survey indicate that there is general satisfaction with the knowledge and skills gained in the program.

**Briefly discuss any areas that may need attention.**

One student failed the comprehensive exam. An additional educational research proposal was assigned as a condition of the student's graduation. It is hoped this will alleviate deficiencies observed during the comprehensive exam. The effectiveness of this assignment will factor into the capstone project development and possible integration with the comprehensive exam.

**Provide a description of when/how assessment results were shared with department/program faculty. Were the assessment results discussed at a faculty meeting or retreat? Is the entire dept./program involved in decision making related to actions to be taken based on the data?**

Assessment results were shared with the program committee following each comprehensive exam. The committee is currently using the assessment results in developing the following new specific actions: employer survey, capstone project.

**Critically evaluate the assessment process. Did the process assess department/program learning outcomes well? Was the data gathered useful?**

The data are useful in order to gauge students' overall comprehension of the program's academic content, and the exit survey is valuable for determining the students' perceptions of the knowledge and skills gained in the program. However, further actions are needed to evaluate the students' application of their new knowledge in their teaching positions. The new specific actions being developed -- employer survey, capstone project -- are expected to lend insight into this. We anticipate implementation of the employer survey in the 2015-16 academic year and the capstone project in the 2016-17 academic year.

**Based on your assessment results, what changes has your department/program made over the last 4 years to improve student learning? Give 2-3 specific examples of the changes made, and any results you have of further evaluation indicating how well these changes accomplished their goals.**

Prior to the fall of 2011, graduating students would take their comprehensive exam in written or oral format. It was determined by the program committee that in order to properly implement the comprehensive exam rubric, written and oral responses would give a clearer understanding of students' content and pedagogical knowledge that they gained in the program. 2011-12 was the first year students were required to take written and oral components of the comprehensive exam. Copies of the written component for each student have been uploaded. In each case, oral exam questions varied - but always starting with follow-up questions to the written exam responses -- but each question pertained to at least one target outcome on the exam rubric.

The exit survey was first implemented this year. Initial results are encouraging but several more years of data will be required to generate a statistically significant sample set.

The program is continuing to develop an employer survey and capstone project.
Mission / Purpose

The mission of the Science/Math Education program is to improve classroom instruction by providing a flexible yet rigorous program of study within an area of endorsement (Biology, Chemistry, Mathematics, Physics, or Physical Science). Candidates who successfully complete the degree demonstrate in-depth pedagogical and content knowledge within their area of specialization, possess broad knowledge of content in multiple disciplines, and apply their knowledge to the curriculum in order to improve teaching and student learning.

Goals

G 1: GOAL 1: Content Knowledge
Candidates demonstrate in-depth knowledge of their area of emphasis. (NCATE 1a, NSTA 1, 2, 3, 4)
Connected Document
Rubric for MSST Capstone Project

G 2: Goal 2: Supporting Areas
Candidates relate content from supporting science/math disciplines to their area of specialization. (NCATE 1a, 1b; NSTA 1, 7)
Connected Document
Rubric for MSST Capstone Project

G 3: Goal 3: Pedagogy
Candidates demonstrate in-depth knowledge of pedagogical methods to help all students learn. (NCATE 1b, 1d, 3c, 4a, 4d; NSTA 1, 5)
Connected Document
Rubric for MSST Capstone Project

G 4: Goal 4: PCK
Candidates apply their pedagogical content knowledge to the development of curriculum that facilitates student learning. (NCATE 1b, 1c, 1d, 3c; NSTA 6)
Connected Document
Rubric for MSST Capstone Project

G 5: Goal 5: Reflection
Candidates make data-driven decisions about their instructional practice. (NCATE 1c, 1d, 3c; NSTA 8, 10)
Connected Document
Rubric for MSST Capstone Project

Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Outcome 1
Candidates can apply the major concepts, principles, theories, and laws of their field of specialization in completing the oral and written comprehensive exam.

Related Measures

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.
Source of Evidence: Comprehensive/end-of-program subject matter exam
Connected Document
Science/Math Education Comprehensive Exam Rubric

Target:
All candidates meet or exceed expectations for all aspects of the comprehensive exam.

Finding (2013-2014) - Target: Met
The comprehensive exam rubric was implemented in the Fall 2011 semester. Twelve students took the comprehensive exam in 2014-15. All passed with "meets expectations" in all areas. The student who failed the exam in 2012-13 successfully completed the assigned educational research project. This student's comprehensive exam score was changed from "fail" to "pass" and the student was allowed to graduate.

Finding (2012-2013) - Target: Not Met
The comprehensive exam rubric was implemented in the Fall 2011 semester. Three students took the comprehensive exam in 2012-13. One passed with "meets expectations" in all areas, one passed with "exceeds expectations" in all areas, and one failed with "does not meet expectations" in some of the areas.

Finding (2011-2012) - Target: Met
The comprehensive exam rubric was implemented in the Fall 2011 semester. Four students took the comprehensive exam. Three passed with "meets expectations" in all areas and one passed with "exceeds expectations" in all areas.
expectations” in all areas.

Connected Document
Science/Math Education Comprehensive Exam Rubric

Finding (2010-2011) - Target: Met
For 2010-11, the rubric had not yet been developed.
Two students took comprehensive exams in the 2010-11 cycle. One student passed without reservation. The other student passed with reservations regarding content details in biology and chemistry.

M 4: Employer survey
A survey of the candidate’s employer is used to judge several aspects of the candidate’s knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

Target:
TBD

Finding (2013-2014) - Target: Not Reported This Cycle
A common employer survey instrument for all UNK online graduate programs with a teacher education component has just been developed, but the target and evaluation rubric to be applied by the Science/Math Education program is still under discussion. It is anticipated that the employer survey will be implemented during the 2015-16 academic year.

Finding (2012-2013) - Target: Not Reported This Cycle
A common employer survey instrument for all UNK online graduate programs with a teacher education component is being developed.

Finding (2011-2012) - Target: Not Reported This Cycle
The employer survey is in development.

Finding (2010-2011) - Target: Not Reported This Cycle
The employer survey has not yet been developed.

SLO 2: Outcome 2
Candidates can synthesize the interrelationships between concepts and processes in their field of specialization and those of other science/math fields in completing the written and oral comprehensive exam.

Related Measures

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.
Source of Evidence: Comprehensive/end-of-program subject matter exam

Connected Document
Science/Math Education Comprehensive Exam Rubric

M 3: Exit Survey
Exit survey given to graduates
Source of Evidence: Exit interviews with grads/program completers

Target:
TBD

Finding (2013-2014) - Target: Met
The exit survey was taken by 9 graduation candidates. Based on the cumulative average question score of 4.37 (agree) out 5.00 (Scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree where all questions were phrased so that agreeing corresponded to positive perceptions), there is a positive perception on the part of the students regarding the knowledge and professional skills gained from the program. Individual question score averages ranged from 3.89 to 4.89.

Finding (2012-2013) - Target: Met
The exit survey was taken by 2 graduation candidates. Based on the average question score of 4.15 (agree) out 5.00 (Scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree where all questions were phrased so that agreeing corresponded to positive perceptions), there is a positive perception on the part of the students regarding the knowledge and professional skills gained from the program.

Finding (2011-2012) - Target: Not Reported This Cycle
The exit survey is in development

Finding (2010-2011) - Target: Not Reported This Cycle
The exit survey has not yet been developed.

SLO 3: Outcome 3
Candidates apply appropriate mathematics and statistics concepts to science topics.

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.
Source of Evidence: Capstone course assignments measuring mastery

Connected Document
Rubric for MSST Capstone Project

Target:
All candidates meet or exceed expectations in all aspects of the capstone project.

Finding (2013-2014) - Target: Not Reported This Cycle
The capstone project is in development.
Finding (2012-2013) - Target: Not Reported This Cycle
The capstone project is in development.

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.
Source of Evidence: Comprehensive/end-of-program subject matter exam
Connected Document
Science/Math Education Comprehensive Exam Rubric

M 3: Exit Survey
Exit survey given to graduates
Source of Evidence: Exit interviews with grads/program completers

SLO 4: Outcome 4
Candidates can evaluate current theories related to pedagogy and learning.

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.
Source of Evidence: Capstone course assignments measuring mastery
Connected Document
Rubric for MSST Capstone Project

M 2: Comprehensive exam
The Comprehensive Exam is administered by the Program Committee in the final semester. Exams are comprised of both written and oral questions.
Source of Evidence: Comprehensive/end-of-program subject matter exam
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M 3: Exit Survey
Exit survey given to graduates
Source of Evidence: Exit interviews with grads/program completers

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate's knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

SLO 5: Outcome 5
Candidates can apply a variety of research-based instructional strategies to promote student learning

Related Measures

M 1: Capstone Project
Candidates submit a Capstone Project in their final semester. The project is evaluated by the Program Committee using the appropriate rubric.
Source of Evidence: Capstone course assignments measuring mastery
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Rubric for MSST Capstone Project

M 3: Exit Survey
Exit survey given to graduates
Source of Evidence: Exit interviews with grads/program completers

M 4: Employer survey
A survey of the candidate's employer is used to judge several aspects of the candidate's knowledge, teaching skill, and professional dispositions.
Source of Evidence: Employer survey, incl. perceptions of the program

Details of Action Plans for This Cycle (by Established cycle, then alpha)

Response to failed comprehensive exam
The student who failed the comprehensive exam was assigned to develop an educational research proposal that, in theory, could be implemented in one or more of the high school classes that the student teaches. The Graduate Program Committee determined that this was the best format to address deficiencies in research techniques and applications of pedagogical methods and science content. An evaluation rubric was developed by the GPC. Upon successful completion of this proposal, the student's comprehensive exam result would be changed from "fail" to "pass".

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Implementation Description: In the summer of 2014, the student completed the proposal. The GPC evaluated it to be "proficient" in all areas according to the grading rubric and the student was allowed to graduate.
Projected Completion Date: 07/2014
Please indicate the number of graduates during the academic year, the number of majors, and/or number of minors.

44 majors, 13 graduates -- 4 with emphases in biology, 3 in chemistry, 3 in math, and 3 in physics/physical science

Briefly discuss strengths of your department/program based on your assessment data.

Our program resulted in the advancing the science content knowledge of 12 practicing teachers based on the results of their comprehensive exams: all achieved "meets expectations" in all areas of comp exam.

Results from the exit survey indicate that there is general satisfaction with the knowledge and skills gained in the program.

Provide a description of when/how assessment results were shared with department/program faculty. Were the assessment results discussed at a faculty meeting or retreat? Is the entire dept./program involved in decision making related to actions to be taken based on the data?

Assessment results were shared with the program committee following each comprehensive exam. The committee is currently using the assessment results in developing the new capstone project.

Critically evaluate the assessment process. Did the process assess department/program learning outcomes well? Was the data gathered useful?

The data are useful in order to gauge students’ overall comprehension of the program's academic content, and the exit survey is valuable for determining the students' perceptions of the knowledge and skills gained in the program. However, further actions are needed to evaluate the students' application of their new knowledge in their teaching positions. The new specific actions being developed -- employer survey, capstone project -- are expected to lend insight into this. We anticipate implementation of the employer survey in the 2015-16 academic year and the capstone project in the 2016-17 academic year.

Based on your assessment results, what changes has your department/program made over the last 4 years to improve student learning? Give 2-3 specific examples of the changes made, and any results you have of further evaluation indicating how well these changes accomplished their goals.

Prior to the fall of 2011, graduating students would take their comprehensive exam in written or oral format. It was determined by the program committee that in order to properly implement the comprehensive exam rubric, written and oral responses would give a clearer understanding of students’ content and pedagogical knowledge that they gained in the program. 2011-12 was the first year students were required to take written and oral components of the comprehensive exam. Copies of the written component for each student have been uploaded. In each case, oral exam questions varied - but always starting with follow-up questions to the written exam responses -- but each question pertained to at least one target outcome on the exam rubric.

The exit survey was first implemented in 2012-13. Initial results are encouraging but several more years of data will be required to generate a statistically significant sample set.

The program is continuing to develop a capstone project.
### MSEd in Science/Math Education

#### Rubric for Comprehensive Exam

<table>
<thead>
<tr>
<th>Target</th>
<th>Exceeds Expectations</th>
<th>Meets Expectations</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Candidate successfully articulates the major concepts, principles, theories, and laws of their field of specialization.</td>
<td>Candidate demonstrates in-depth knowledge of the subject through inquiry, critical analysis, and synthesis.</td>
<td>Candidate can explain important principles and concepts delineated in professional standards.</td>
<td>Candidate is unable to give examples of important principles and concepts delineated in professional standards.</td>
</tr>
<tr>
<td>2.1 Candidate successfully conveys interrelationships between concepts and processes in their field of specialization and those of other science/math fields.</td>
<td>Candidate can articulate the knowledge and practices of science, including the unifying concepts of science as described by NSTA.</td>
<td>Candidate can explain content in supporting fields and how that content relates to the field of specialization; identifies mathematics skills that are applicable to science topics.</td>
<td>Candidate fails to identify and explain connections between the field of specialization and supporting science/math fields.</td>
</tr>
<tr>
<td>2.2 Candidate applies appropriate mathematics and statistics concepts to science topics.</td>
<td>Candidate is able to apply mathematics and statistics concepts in the context of more than one science discipline.</td>
<td>Candidate can explain and use mathematics and statistics in the context of a science discipline.</td>
<td>Candidate is unable to use mathematics and statistics concepts in the context of a science discipline.</td>
</tr>
<tr>
<td>3.1 Candidate summarizes current theories related to pedagogy and learning.</td>
<td>Candidate is able to critique research and theories related to pedagogy and learning.</td>
<td>Candidate demonstrates in-depth knowledge of instructional strategies and theories related to pedagogy and learning in their field.</td>
<td>Candidate demonstrates limited understanding of the relationship between content and content-specific pedagogy, is unable to explain linkages between theory and practice.</td>
</tr>
<tr>
<td>3.2 Candidate applies a variety of research-based instructional strategies to promote student learning.</td>
<td>Candidate demonstrates expertise in pedagogical content knowledge and preconceptions that hinder learning; is able to select and develop instructional strategies and technologies, based on research and experience, that help all students learn.</td>
<td>Candidate is able to select and use a broad range of instructional strategies and technologies that promote student learning and is able to clearly explain the choices used in their practice.</td>
<td>Candidate is unable to select or use a broad range of instructional strategies that build on students’ backgrounds and knowledge of content.</td>
</tr>
</tbody>
</table>
### MSEd in Science/Math Education

**Rubric for Capstone Project**

<table>
<thead>
<tr>
<th>Target</th>
<th>Exceeds Expectations</th>
<th>Meets Expectations</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Candidates evaluate their instruction relative to standards and “best practices” in science/math education.</td>
<td>Candidate has in-depth knowledge of science/math standards and best practices and is able to share expertise with other professionals.</td>
<td>Candidate is familiar with science/math standards and best practices and is able to identify areas where professional development is needed.</td>
<td>Candidate is unfamiliar with science/math standards and best practices.</td>
</tr>
<tr>
<td>4.2 Candidates plan science/math curriculum units that are aligned with state and/or national science education standards.</td>
<td>Candidate plans lessons that are consistent with the goals of scientific and mathematics literacy; adapts or creates materials and instructional strategies as needed to implement a standards-based curriculum; engages students in activities that develop scientific and mathematics processes; addresses preconceptions that may hinder learning.</td>
<td>Candidate plans lessons that are consistent with science/mathematics standards.</td>
<td>Candidate does not plan lessons that are consistent with science/mathematics standards.</td>
</tr>
<tr>
<td>5.1 Candidates plan multi-faceted assessment strategies that are aligned with goals of instruction.</td>
<td>Candidate plans multiple assessment strategies that are well-matched to the lesson objectives, the needs of students, and the methods of instruction.</td>
<td>Candidate plans multiple assessment strategies that are matched to the lesson objectives and the needs of students.</td>
<td>Candidate does not plan to use multiple assessment strategies OR assessments are not matched to lesson objectives.</td>
</tr>
<tr>
<td>5.2 Candidates analyze student performance data to assess both teaching and learning.</td>
<td>Candidate draws conclusions regarding student performance that are consistent with assessment data; use data from multiple assessments to make decisions regarding teaching strategies.</td>
<td>Candidate attempts to analyze student performance based on assessment data.</td>
<td>Candidate’s conclusions are not based on assessment data.</td>
</tr>
<tr>
<td>5.3 Candidates reflect on their practice to identify strengths and areas for improvement.</td>
<td>Candidate engages in thoughtful, thorough, and continuous self-evaluation; identifies specific aspects of instruction to improve as well as aspects that resulted in student learning.</td>
<td>Candidate reflects on effectiveness of instruction and identifies specific aspects of instruction to improve.</td>
<td>Candidate is unable to adequately reflect on teaching performance.</td>
</tr>
</tbody>
</table>
Exit Survey Results Summary

<table>
<thead>
<tr>
<th>Statement</th>
<th>2012-13</th>
<th>2013-14</th>
<th>Weighted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>2</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>My program has further contributed to my understanding of my content area</td>
<td>5.00</td>
<td>4.89</td>
<td>4.91</td>
</tr>
<tr>
<td>My program has further contributed to my understanding of the structure and central concepts of my content area.</td>
<td>4.00</td>
<td>4.67</td>
<td>4.55</td>
</tr>
<tr>
<td>My program has further contributed to my understanding of the purposes of schooling in a diverse and democratic society.</td>
<td>4.00</td>
<td>3.89</td>
<td>3.91</td>
</tr>
<tr>
<td>My program has further contributed to my understanding of the purposes of professional practice in a diverse and democratic society.</td>
<td>4.00</td>
<td>4.11</td>
<td>4.09</td>
</tr>
<tr>
<td>My program has further contributed to my understanding of the concept of data collection to enhance learning for all learners within my content area.</td>
<td>4.00</td>
<td>4.67</td>
<td>4.55</td>
</tr>
<tr>
<td>My program has further contributed to my understanding of the concept of evaluation to enhance learning for all learners within my content area.</td>
<td>4.50</td>
<td>4.56</td>
<td>4.55</td>
</tr>
<tr>
<td>My program has further contributed to my understanding of the tools of inquiry and research for expanding knowledge and/or solving problems in the workplace.</td>
<td>4.50</td>
<td>4.33</td>
<td>4.36</td>
</tr>
<tr>
<td>My program has taught me how to work productively with others.</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>My program has taught me how to work productively with others to facilitate positive influences on decision-making effecting learning of all learners in professional settings.</td>
<td>4.00</td>
<td>4.22</td>
<td>4.18</td>
</tr>
<tr>
<td>My program has taught me how to independently evaluate impact of instruction, treatment/intervention/management decisions (whichever applies to you) on the welfare of those served.</td>
<td>4.00</td>
<td>4.22</td>
<td>4.18</td>
</tr>
<tr>
<td>My program has taught me how to be responsible to the profession as defined by my specific program</td>
<td>4.00</td>
<td>4.44</td>
<td>4.36</td>
</tr>
<tr>
<td>My program has taught me how to be a leader in my content area.</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>My program has taught me how to be an advocate for individuals to foster learning for all learners.</td>
<td>4.00</td>
<td>4.11</td>
<td>4.09</td>
</tr>
<tr>
<td>My program has taught me how to be an advocate at systemic levels to foster learning for all learners.</td>
<td>3.50</td>
<td>3.89</td>
<td>3.82</td>
</tr>
<tr>
<td>I have the skills to collect data within my specific content area.</td>
<td>4.50</td>
<td>4.44</td>
<td>4.45</td>
</tr>
<tr>
<td>I have the skills to collect data within my specific content area to guide the planning of specialization specific methodology to enhance learning of all learners.</td>
<td>4.00</td>
<td>4.56</td>
<td>4.46</td>
</tr>
<tr>
<td>I have the skills to analyze data within my specific content area.</td>
<td>4.50</td>
<td>4.67</td>
<td>4.64</td>
</tr>
<tr>
<td>I have the skills to analyze data within my specific content area to guide the planning of specialization specific methodology to enhance learning of all learners.</td>
<td>4.00</td>
<td>4.33</td>
<td>4.27</td>
</tr>
<tr>
<td>I have the skills to utilize technology appropriate to my content area to deliver instruction.</td>
<td>4.50</td>
<td>4.67</td>
<td>4.64</td>
</tr>
<tr>
<td>I have the skills to utilize technology appropriate to my content area to manage information.</td>
<td>4.00</td>
<td>4.78</td>
<td>4.64</td>
</tr>
</tbody>
</table>

**OVERALL AVERAGE SCORE**

<table>
<thead>
<tr>
<th></th>
<th>2012-13</th>
<th>2013-14</th>
<th>Weighted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.15</td>
<td>4.37</td>
<td>4.33</td>
</tr>
</tbody>
</table>
Employer Survey

Directions: Please indicate your rating of the educator’s performance on each standard according to the following rubric. For each standard, example indicators are provided to clarify and develop the standard but are not an exhaustive list. There is a text box at the end of the evaluation for you to include comments.

<table>
<thead>
<tr>
<th>1 = Beginning/Novice</th>
<th>The educator demonstrates serious difficulties with implementation of this standard; he/she exhibits a lack of awareness about the need for and/or the ways to demonstrate the standard.</th>
<th>2 = Progressing</th>
<th>The educator demonstrates occasional difficulties with implementation of the standard, but is generally successful and able to handle situations independently.</th>
<th>3 = Proficient</th>
<th>The educator consistently demonstrates what is expected for the standard.</th>
</tr>
</thead>
</table>

Learning Environments. The educator works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

- Collaborate with students and colleagues to develop shared values and expectations for respectful interactions, rigorous academic discussions, and individual and group responsibility for quality work.
- Manage the learning environment to actively and equitably engage students by organizing, allocating, and coordinating the resources of time, space, and students’ attention.
- Communicate verbally and nonverbally in ways that demonstrate respect for and responsiveness to the cultural backgrounds and differing perspectives students bring to the learning environment.
- Promote responsible student use of interactive technologies.
- Develop learning experiences that engage students in collaborative and self-directed learning.
- Demonstrate/model a firm commitment to the core democratic principles of freedom (liberty), equality, and justice in ways that help prepare others for productive living in a democratic society.
- Demonstrates a belief that all learners can be successful and an understanding of the impact of diverse perspectives and experiences on learning.

|----------------------|--------------|--------------|

Content Knowledge. The educator understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for students to assure mastery of the content. This includes the ability to integrate literacy skills and Nebraska Content Standards into instruction.

- Effectively use multiple representations and explanations that capture key ideas in the discipline.
- Engage students in learning experiences in the discipline(s) that encourage students to understand, question, and analyze ideas from diverse perspectives.
- Stimulate student reflection on prior content knowledge, link new concepts to familiar concepts, and make connections to students’ experiences.
- Use supplementary resources and technologies effectively to ensure accessibility and relevance for all students.
- Evaluate and modify instructional resources and curriculum materials.

|----------------------|--------------|--------------|
Assessment. The educator understands and uses multiple methods of assessment to engage students in their own growth, to monitor student progress, and to guide the teacher candidate's and student's decision making.

- Balance the use of formative and summative assessment as appropriate to support, verify, and document learning
- Design assessments that match learning objectives with assessment methods and minimizes sources of bias
- Work independently and collaboratively to examine test and other performance data
- Effectively use multiple and appropriate types of assessment data
- Engage students in understanding and identifying quality work
- Provide students with effective descriptive feedback to guide their progress toward that work.
- Engage students in multiple ways of demonstrating knowledge and skill as part of the assessment process
- Continually seek appropriate ways to employ technology to support assessment practice

|----------------------|----------------|--------------|

Planning for Instruction. The educator plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, technology, and pedagogy, as well as knowledge of students and the community context.

- Individually and collaboratively select and create learning experiences that are appropriate for curriculum goals and content standards, and are relevant to students
- Plan how to achieve each student's learning goals
- Choose appropriate strategies and accommodations, resources, and materials to differentiate instruction for individuals and groups of students
- Plan for instruction based on formative and summative assessment data, prior student knowledge, and student interest
- Plan collaboratively with professionals who have specialized expertise
- Evaluate plans in relation to short- and long-range goals
- Systematically adjust plans to meet each student's learning needs and enhance learning
- Develop appropriate sequencing of learning experiences
- Provides multiple ways to demonstrate knowledge and skill

|----------------------|----------------|--------------|

Instructional Strategies. The educator understands and uses a variety of instructional strategies to encourage students to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways. This includes developing competency for utilizing technology for instruction, assessment, and communication.

- Uses appropriate strategies and resources to adapt instruction to the needs of individuals and groups of students
- Continuously monitor student learning, engage students in assessing their progress, and adjust instruction in response to student learning needs
- Collaborate with students to design and implement relevant learning experiences
- Vary his/her role in the instructional process (e.g., instructor, facilitator, coach, audience) in relation to the content and purposes of instruction and the needs of students
- Provide multiple models and representations of concepts and skills
- Engage all students in developing higher order questioning skills and metacognitive processes
- Engage students in using a range of learning skills and technology tools
- Ask questions to stimulate discussion that serves different purposes

|----------------------|----------------|--------------|
Professional Learning and Ethical Practice. The educator engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (students, families, other professionals, and the community), and adapts practice to meet the needs of each student.

- Engage in ongoing learning opportunities to develop knowledge and skills
- Engage in meaningful and appropriate professional learning experiences
- Advocate, model, and teach safe, legal, and ethical use of information and technology
- Use a variety of data to evaluate the outcomes of teaching and learning and to adapt planning and practice
- Reflect on his/her personal biases and accesses resources to deepen his/her own understanding of cultural, ethnic, gender, and learning differences
- Demonstrates the ability to evaluate the impact and refine instruction/treatment (intervention).
- Engages in reflective management decisions for the welfare of those served.
- Selects and analyses appropriate assessment strategies for individuals or systems served.

1. Beginning / Novice  
2. Progressing  
3. Proficient

Leadership and Collaboration. The educator seeks opportunities to take responsibility for student learning, to collaborate with students, families, colleagues, and other school professionals, and community members to ensure student growth, and to advance the profession.

- Take an active role on the instructional team
- Work with other school professionals to plan and jointly facilitate learning
- Work collaboratively with students and their families to establish mutual expectations and ongoing communication
- Use technological tools and a variety of communication strategies to build local and global learning communities
- Advocates at individual and systemic levels.
- Facilitates positive influences on decision-making affecting those served.

1. Beginning / Novice  
2. Progressing  
3. Proficient
Appendix B:
Science/Math Education faculty vitae
Stefania C. Panaitof  
Biology  
(308) 865-1572  
Email: panaitofsc@unk.edu

Academic Degrees
PhD, University of New Hampshire, 2006.  
Major: Zoology  
Dissertation Title: Physiological bases of biparental care in the burying beetles, Nicrophorus orbicollis
Postgraduate Diploma in Advanced Studies, University of Bucharest, 1999.  
Major: Neurobiology
Licence Diploma, University of Bucharest, 1997.  
Major: Biology

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 13, 2012
Date Attained Rank of Assistant Professor: August 13, 2012

Teaching
Scheduled Teaching

Fall 2012
BIOL 215, Human Physiology, 4 credit hours, 20 students enrolled, On Campus.
BIOL 215, Human Physiology, 0 credit hours, 20 students enrolled, On Campus.

Spring 2013
BIOL 226, Anat/Physio, 0 credit hours, 23 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 17 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 20 students enrolled, On Campus.
BIOL 404, Developmental Biology, 3 credit hours, 6 students enrolled, On Campus.
BIOL 404, Developmental Biology, 0 credit hours, 6 students enrolled, On Campus.

Fall 2013
BIOL 215, Human Physiology, 4 credit hours, 10 students enrolled, On Campus.
BIOL 215, Human Physiology, 0 credit hours, 10 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 21 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 22 students enrolled, On Campus.

Fall 2014
BIOL 215, Human Physiology, 4 credit hours, On Campus.
BIOL 215, Human Physiology, 0 credit hours, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, On Campus.
BIOL 880, Seminar, 1 credit hours, On Campus.

**Directed Student Learning**

Advised: Becky Frerichs

"Role of CNTNAP2 knockdown in zebra finch neurons," Biology. (August 26, 2013 - Present).
Advised: Madelyn Warren

Advised: Taylor Hyatt

Advised: Taylor Hyatt

**Scholarship**

**Intellectual Contributions**


**Presentations**


**Contracts, Fellowships, Grants, and Sponsored Research**

**Funded**


Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), Reichart, L. M. (Co-Principal), Bourret, T. J. (Co-Principal), Panaitof, S. C. (Co-Principal), "Nebraska Training Network and Functional Genomics," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $1,275,620.00. (April 2009 - March 2014).

**Service**

**Professional Memberships**


American Association for the Advancement of Science. (2003 - Present).

**Service – Department**

Committee Member, IACUC. (June 2013 - Present).

Committee Member, Graduate Research. (May 2013 - Present).
Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: April 1, 2009
Date Attained Rank of Assistant Professor: April 1, 2009
Date Attained Rank of Associate Professor: August 19, 2013

Teaching
Scheduled Teaching

Fall 2010
BIOL 881, Current Issues In Biology, 1 credit hours, 22 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 21 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 36 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.

Spring 2011
BIOL 830P, Spec Topics In Biology, 3 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 26 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 26 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 24 students enrolled, Web Based.

Summer 2011
BIOL 830P, Special Topics in Biology, 3 credit hours, 14 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 17 students enrolled, Web Based.

Fall 2011
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 24 students enrolled, Web Based.

Spring 2012
BIOL 830P, Special Topics in Biology, 3 credit hours, 2 students enrolled, On Campus.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 24 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 23 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 9 students enrolled, Web Based.
BIOL 883, Aquatic Trophic Ecology, 3 credit hours, 22 students enrolled, Web Based.

Summer 2012
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 14 students enrolled, Web Based.
BIOL 887, Fisheries Ecology, 3 credit hours, 11 students enrolled, Web Based.

Fall 2012
BIOL 881, Current Issues In Biology, 1 credit hours, 24 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 23 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 23 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 24 students enrolled, Web Based.

Spring 2013
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 18 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 11 students enrolled, Web Based.
BIOL 883, Aquatic Trophic Ecology, 3 credit hours, 10 students enrolled, Web Based.

Summer 2013
BIOL 881, Current Issues In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 21 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 15 students enrolled, Web Based.
BIOL 887, Fisheries Ecology, 3 credit hours, 12 students enrolled, Web Based.

Fall 2013
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 16 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 16 students enrolled, On Campus.
BIOL 881, Current Issues In Biology, 1 credit hours, 21 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 21 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 22 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.

Spring 2014
BIOL 830P, Special Topics in Biology, 3 credit hours, 4 students enrolled, On Campus.
BIOL 881, Current Issues In Biology, 1 credit hours, 19 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 19 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 19 students enrolled, Web Based.

Summer 2014
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, 20 students enrolled, Web Based.

Fall 2014
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, On Campus.
BIOL 307, Ecology, 3 credit hours, On Campus.
BIOL 307, Ecology, 0 credit hours, On Campus.
BIOL 307H, Ecology, 3 credit hours, On Campus.
BIOL 307H, Ecology, 0 credit hours, On Campus.
BIOL 881, Current Issues In Biology, 1 credit hours, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, Web Based.
BIOL 881, Current Issues In Biology, 1 credit hours, Web Based.

Directed Student Learning
Advised: Briana Pallas
Advised: Chase Svoboda
Advised: Cooper Bollman
Advised: James Hobbs
Advised: Jonathon Newkirk
Advised: Maria Chaney
Advised: Micah Bowman
Advised: Tiffany Seder
Master's Thesis Committee Chair. (2014).
Advised: Zach Woiak
Master's Thesis Committee Member. (2014).
Advised: Erik Prenosil
Master's Thesis Committee Member. (2014).
Advised: Jeremy Grauf
Advised: Landon Ziembka
Master's Thesis Committee Member. (2013).
Advised: Robert Kill
Advised: Brett Roberg
Directed Individual. (2012). Advised: Lacey Hopper


Master’s Thesis Committee Chair. (2012). Advised: Chris Uphoff

Master’s Thesis Committee Chair. (2012). Advised: Seth Lundgren

Master’s Thesis Committee Member. (2012). Advised: Alexis Maple

Master’s Thesis Committee Member. (2012). Advised: David Schummann


Master’s Thesis Committee Member. (2010). Advised: Chelsey Pasbrig

Scholarship

Intellectual Contributions


**Presentations**


Peterson, B. C. (Author & Presenter), Schoenebeck, C. W. (Author). The Crane Trust 2nd Annual Research Symposium, "Using cast antlers to assess the age-specific antler selectivity of white-tailed deer hunters within the Platte River Valley," Crane Trust, Alda, Nebraska. (October 18, 2013).

Society, "Investigating the impact of ontogenetic diet shifts on the growth of age-0 walleye," Joint Meeting with the Esocid and Centrachid Technical Committees, Wausau, WI. (July 2013).


Katt, J. (Author & Presenter), Koupal, K. D. (Author), Schoenebeck, C. W. (Author), Peterson, B. C. (Author), Hoback, W. W. Nebraska Chapter of the American Fisheries Society, "Changes in walleye egg density and adult abundances due to the addition of cobble substrate in Sherman Reservoir.," Ponca, Nebraska. (February 2010).


Olds, B. (Author & Presenter), Peterson, B. C. (Author), Koupal, K. D. (Author), Farnsworth Hoback, K. M. (Author), Schoenebeck, C. W. (Author), Hoback, W. W. (Author). Nebraska Chapter of the American Fisheries Society, "Unexpected changes in turbidity and chlorophyll in a Nebraska reservoir following severe drought.," Ponca, Nebraska. (February 2010).

Contracts, Fellowships, Grants, and Sponsored Research

Funded


Schoenebeck, C. W. (Co-Principal), Koupal, K. D. (Co-Principal), "Production of yellow perch in Nebraska lakes," Grant, Sponsored by Nebraska Game and Parks Sport Fisheries Fund, State, $331,245.00. (2010 - 2015).
Hoback, W. W. (Co-Principal), Schoenebeck, C. W. (Co-Principal), Koupal, K. D. (Co-Principal), "Limnological assessment of Harlan County Reservoir 2010-1014," Grant, Sponsored by Nebraska Game and Parks Sport Fisheries Fund, State, $472,744.00. (2010 - 2014).

Peterson, B. C. (Co-Principal), Schoenebeck, C. W. (Co-Principal), "Thompson Scholar Mentor Professional Development Stipend," Grant, Sponsored by Thompson Scholar Program, University of Nebraska at Kearney, $400.00. (2013).

Service

Professional Memberships

Sigma Xi, University of Nebraska at Kearney Chapter. (2012 - Present).
Nebraska Chapter, American Fisheries Society. (2009 - Present).

Academic Advising

Master's Thesis Committee Chair. (2014).
Advised: Zach Woiak
Master's Thesis Committee Member. (2014).
Advised: Erik Prenosil
Master's Thesis Committee Member. (2014).
Advised: Jeremy Grauf
Master's Thesis Committee Member. (2013).
Advised: Robert Kill
Master's Thesis Committee Chair. (2012).
Advised: Chris Uphoff
Master's Thesis Committee Chair. (2012).
Advised: Seth Lundgren
Master's Thesis Committee Member. (2012).
Advised: Alexis Maple
Master's Thesis Committee Member. (2012).
Advised: David Schumann
Master's Thesis Committee Member. (2010).
Advised: Chelsey Pasbrig

Service – Department

Committee Member, Assistant Professor of Biology Search Committee (Plant emphasis). (2013 - Present).
Committee Chair, Graduate Program Assessment and Curriculum Mapping Committee. (2011 - Present).
Committee Member, Assistant Professor of Biology Search Committee (Sustainability emphasis). (2014 - 2015).
Committee Member, Assistant Professor of Biology Search Committee (Anatomy and Physiology). (2011 - 2012).

Service – College

Assessment Committee, University of Nebraska at Kearney, Representative. (2013 - Present).
Committee Member, Faculty Senate, University of Nebraska at Kearney, eCampus Representative. (2013 - Present).
Committee Member, Student Travel Policy Committee, University of Nebraska at Kearney, Representative. (2013 - Present).
Committee Member, Science Day Steering Committee and Instructor. (2012 - Present).
Judge, Nebraska Junior Academy of Sciences, University of Nebraska at Kearney, College of Natural and Social Science. (2012).

**Service – University**

Adjunct Assistant Professor, University of Nebraska at Lincoln, School of Natural Resources, Lincoln, Nebraska. (2009 - Present).

Committee Member, Thesis Committee Member, Robert Kill, University of Nebraska at Lincoln. (2012 - 2013).

Nebraska Master Naturalist Instructor, University of Nebraska. (2012).

Committee Member, Thesis Committee Member, Alexis Maple, University of Nebraska at Lincoln. (2010 - 2011).

**Service – Professional**

Officer, President/Elect/Past, Nebraska Chapter of the American Fisheries Society. (2014 - Present).


Walleye Technical Committee Representative, Nebraska Chapter, American Fisheries Society. (2012 - Present).

Committee Member, Awards Committee, Nebraska Chapter, American Fisheries Society. (2011 - Present).


Annual propagation meeting, Nebraska Game and Parks. (2009 - Present).

Walleye broodstock collection and male population estimate, Nebraska Game and Parks. (2009 - Present).


**Other**

**Faculty Development Activities Attended**


Workshop, "Degree Audit Training," University of Nebraska at Kearney, UNK Registrar’s Office. (2013).
Dr. Dawn M. Simon
Biology
(308) 865-8470
Email: simondm@unk.edu

Academic Degrees
PhD, University of Iowa, 2004.
  Major: Molecular Evolution
  Dissertation Title: Comparative analysis of group I intron evolution in microbial eukaryotes
BS, University of Iowa, 1996.
  Major: Biology
  Dissertation Title: Characterization of photosynthetic mutants in Chlamydomonas reinhardtii

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: January 5, 2009
Date Attained Rank of Assistant Professor: January 5, 2009

Academic, Government, Military and Professional Positions
Associate Professor, University of Nebraska at Kearney, Academic - Post-Secondary. (August 2013 - Present).
Assistant Professor, University of Nebraska at Kearney, Academic - Post-Secondary. (January 2009 - August 2013).
Research and Teaching Assistant, University of Iowa, Academic - Post-Secondary. (August 1997 - December 2004).

Teaching
Scheduled Teaching

Fall 2010
BIOL 290, Evolution, 3 credit hours, 32 students enrolled, On Campus.
BIOL 290H, Evolution, 3 credit hours, 1 students enrolled, On Campus.
BIOL 880, Seminar, 1 credit hours, 11 students enrolled, On Campus.

Spring 2011
BIOL 290, Evolution, 3 credit hours, 19 students enrolled, On Campus.
BIOL 290H, Evolution, 3 credit hours, 2 students enrolled, On Campus.
BIOL 325, Med Terminology, 1 credit hours, 60 students enrolled, On Campus.
BIOL 325, Med Terminology, 1 credit hours, 28 students enrolled, On Campus.
BIOL 480, Seminar, 1 credit hours, 1 students enrolled, On Campus.
BIOL 830P, Spec Topics In Biology, 3 credit hours, 21 students enrolled, Web Based.
BIOL 880, Seminar, 1 credit hours, 7 students enrolled, On Campus.

Fall 2011
BIOL 290, Evolution, 3 credit hours, 25 students enrolled, On Campus.
BIOL 325, Med Terminology, 1 credit hours, 55 students enrolled, On Campus.
BIOL 325, Med Terminology, 1 credit hours, 20 students enrolled, On Campus.
BIOL 880, Seminar, 1 credit hours, 13 students enrolled, On Campus.
Spring 2012
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 16 students enrolled, On Campus.
BIOL 290, Evolution, 3 credit hours, 23 students enrolled, On Campus.
BIOL 290H, Evolution, 3 credit hours, 1 students enrolled, On Campus.
BIOL 325, Med Terminology, 1 credit hours, 60 students enrolled, Web Based.
BIOL 880, Seminar, 1 credit hours, 8 students enrolled, On Campus.

Fall 2012
BIOL 290, Evolution, 3 credit hours, 33 students enrolled, On Campus.
BIOL 830P, Special Topics in Biology, 3 credit hours, 16 students enrolled, Web Based.

Spring 2013
BIOL 106, Biology II, 0 credit hours, 14 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 13 students enrolled, On Campus.
BIOL 290, Evolution, 3 credit hours, 31 students enrolled, On Campus.
BIOL 290H, Evolution, 3 credit hours, 5 students enrolled, On Campus.

Fall 2013
BIOL 290, Evolution, 3 credit hours, 25 students enrolled, On Campus.
BIOL 853, Genome Evolution, 3 credit hours, 25 students enrolled, Web Based.

Spring 2014
BIOL 106, Biology II, 0 credit hours, 15 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 11 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 13 students enrolled, On Campus.
BIOL 290, Evolution, 3 credit hours, 22 students enrolled, On Campus.
BIOL 290H, Evolution, 3 credit hours, 1 students enrolled, On Campus.

Summer 2014
BIOL 830P, Special Topics in Biology, 3 credit hours, 9 students enrolled, Web Based.

Fall 2014
BIOL 290, Evolution, 3 credit hours, On Campus.
BIOL 290H, Evolution, 3 credit hours, On Campus.
BIOL 802, Organic Evolution, 3 credit hours, On Campus.
BIOL 802, Organic Evolution, 3 credit hours, Web Based.
BIOL 802, Organic Evolution, 3 credit hours, Web Based.
**Directed Student Learning**

"Microbial Contamination of Surfaces Sampled from Pulmonary Rooms at Children’s Hospital Colorado.." (August 2014 - Present).
Advised: Joseph McClennan

Master’s Thesis Committee Member, Biology. (August 2014 - Present).
Advised: Jennifer Frisch

Supervised Research - UGRD, "TBD." (August 2014 - Present).
Advised: Abby Hongsermeier

Advised: Abby Hongsermeier

Advised: Sarah Paquette

Advised: Jessica Korinek

Supervised Research - UGRD, "Intron degeneration in the lichen fungi Teloschistes.," Biology. (August 2013 - Present).
Advised: Jordanna Glock

Directed Individual, "Comparison of grass and sedge populations of the Platte River in Cass County, Nebraska," Biology. (June 2013 - Present).
Advised: Patrick Brommer

Advised: Jacquelyn Smith

Advised: Brittney Adams

Advised: Grace Woeppele

Advised: Lindsey Bowen

Advised: Ryan Kleier

Advised: Shanice Harris

Directed Individual, "Comparison of the Rare Genome Sequencing for 16S rRNA of Bacteria across Alkaline Lakes in Northwest Nebraska," Biology. (June 2013 - May 2014).
Advised: Kathryn Krischke

Advised: Derek Kleier

Advised: Eva Aranda

Advised: Holly Kus
Directed Individual, "Salinity and temperature effects on Prorocentrum minimum cell density in laboratory cultures as a model for seasonal bloom conditions in the Arabian gulf region," Biology. (January 2013 - December 2013).
Advised: Matthew Brim

Advised: Jennifer Davis

Advised: Kellie Hansen

Advised: Jeff Shaw

Advised: Tyson Lynn

Advised: Marie Clark

Advised: Benjamin Stellmacher

Advised: Heather Harris

Advised: Kimberly Maurer

Advised: Dianne Hoellman

Advised: Julana Williams

Advised: Julie McLaughlin

Directed Individual, "Degeneration of a plastid group II intron.," Biology. (June 2010 - May 2012).
Advised: Jaicee Post

Advised: Stephanie Doucette

Advised: Travis Kirchner

Advised: Monluedee Luecha

Master's Thesis Committee Member, Biology. (2009 - 2011).
Advised: Ethan Cordes

Master's Thesis Committee Member, Biology. (2009 - 2011).
Advised: Monluedee Luecha

Advised: Sara English
Advised: Lance Wilson

Advised: William Becker

Advised: Eric Steelman

Advised: Jason Haineault

Advised: Whitney Prokupek

Advised: Dawn Fuelberth

Master's Thesis Committee Member. (2009 - 2010).
Advised: Rick Callahan

Advised: Alicia Virgl

Scholarship

Intellectual Contributions


Presentations


Contracts, Fellowships, Grants, and Sponsored Research

Currently Under Review
Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), "Nebraska Training Network and Functional Genomics", Project Title: “Bridge Funding”, Grant, Sponsored by
INBRE Program of the National Center for Research Resources/NIH, Federal, $2,344,723.00. (August 2014 - August 2015).

Funded
Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), "Supplement to INBRE Grant – Summer Bridge Funding from UNMC to support INBRE Scholars," Grant, Sponsored by UNMC, State, $8,900.00. (July 2014 - September 2014).
Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), Reichart, L. M. (Co-Principal), Bourret, T. J. (Co-Principal), Panaitof, S. C. (Co-Principal), "Nebraska Training Network and Functional Genomics," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $1,275,620.00. (April 2009 - March 2014).
Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), "Administrative Supplement Notice for Students and Science Educators under the Recovery Act", Project Title: "Nebraska Training Network and Functional Genomics"," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $142,516.00. (July 2009 - September 2011).
Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Simon, D. M. (Co-Principal), Shaffer, J. J. (Co-Principal), "Supplement to INBRE Grant Renewal Year 1:  Purchase of multiple pieces of equipment," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $54,838.00. (2010).

Service
Professional Memberships
Association for Biology Laboratory Education. (June 2014 - Present).
Society for Molecular Biology and Evolution. (2009 - Present).

Academic Advising
Master’s Thesis Committee Member, Biology. (August 2014 - Present).
Advised: Jennifer Frisch
Master’s Thesis Committee Member, Biology. (2009 - 2011).
Advised: Ethan Cordes
Master’s Thesis Committee Member, Biology. (2009 - 2011).
Advised: Monluedee Luecha
Master’s Thesis Committee Member. (2009 - 2010).
Advised: Rick Callahan

2011-2012
Undergraduate Students Advised: 30

2012-2013
Undergraduate Students Advised: 30

2013-2014
Undergraduate Students Advised: 35

2014-2015
Undergraduate Students Advised: 24

**Service – Department**
Committee Chair, Search Committee Public Health tenure-track position. (September 2014 - Present).
Faculty Mentor. (2013 - Present).
Departmental Tours. (2011 - Present).
Committee Chair, Assessment. (August 2009 - Present).
Committee Member, Oversight Committee. (2010 - 2013).
Committee Member, Search Committee Anatomy & Physiology tenure-track position. (January 2012 - May 2012).
Committee Member, Search Committee Distance tenure-track position. (August 2010 - December 2010).
Committee Chair, Graduate Student Handbook. (January 2010 - August 2010).

**Service – College**
Committee Member, Advisory Committee. (August 2014 - May 2017).
Committee Member, Faculty Peer Review - Physics. (January 2015 - May 2015).

**Service – University**
Committee Member, Faculty Senate Artists & Lecturers Committee. (October 2013 - Present).
Presenter, Health Careers Fair. (October 8, 2014).
Committee Member, Faculty Senate Library Committee. (February 2014 - September 2014).
Presenter, Health Careers Fair. (October 9, 2013).

**Service – Professional**

**Service – Public**
Science Fair judge. (2012).
Program Organizer, NESCent Darwin Day. (September 2010 - February 2011).
Science Fair judge. (2010).

**Other**

**Faculty Development Activities Attended**
Day long formal informational visit to UNMC College of Public Health, "University of Nebraska Medical Center (UNMC) Public Health Early Admissions Student Track (PHEAST) Visit," University of Nebraska Medical Center (UNMC) College of Public Health, Omaha, NE, State. (September 29, 2014).
Workshop, "Faculty Online Training Course," UNK eCampus, Kearney, NE, Local. (September 2010 - November 2010).
Academic Degrees
PhD, University of Nebraska-Lincoln, 1999.
   Major: Biology
   Supporting Areas of Emphasis: Microbial physiology
   Dissertation Title: Characterization of a novel DNA repair phenotype in Pseudomonas aeruginosa bacteriophage UNL-1
   Major: Biology and English

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 23, 1999
Date Attained Rank of Assistant Professor: August 16, 1999
Date Attained Rank of Associate Professor: August 16, 2004
Date Attained Rank of Full Professor: August 16, 2010

Awards and Honors
Leland Holdt/Security Mutual Life Insurance Company Distinguished Faculty Award, University. (December 19, 2014).
Recognition for exemplary service and leadership, Missouri-Valley Branch of the American Society of Microbiology, Leadership. (2013).
Silver Leadership Award, Community Health Charities of Nebraska, Service, Community, State. (2013).
MGAN Travel Award, Department of Energy (DOE) Joint Genome Institute (JGI), Teaching, Regional. (2012).
University Departmental Teaching Award, UNK, Teaching, University. (2012).
Pratt-Heins Foundation Faculty Award, UNK, Teaching, University. (2010).

Teaching
Scheduled Teaching

Fall 2010
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 20 students enrolled, On Campus.
BIOL 430, Special Topic In Biology, 3 credit hours, 1 students enrolled, On Campus.
BIOL 830P, Spec Topics In Biology, 1 credit hours, 25 students enrolled, Web Based.
BIOL 840, Infectious Diseases, 3 credit hours, 27 students enrolled, Web Based.

Spring 2011
BIOL 211, Human Microbio, 4 credit hours, 102 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 23 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 19 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 20 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 19 students enrolled, On Campus.
BIOL 400, Microbiology, 4 credit hours, 7 students enrolled, On Campus.
BIOL 400, Microbiology, 0 credit hours, 8 students enrolled, On Campus.
BIOL 800P, Microbiology, 4 credit hours, 1 students enrolled, On Campus.
BIOL 800P, Microbiology, 0 credit hours, 1 students enrolled, On Campus.

**Summer 2011**
BIOL 840, Infectious Diseases, 3 credit hours, 25 students enrolled, Web Based.

**Fall 2011**
BIOL 430, Special Topics in Biology, 3 credit hours, 2 students enrolled, Web Based.
BIOL 440, Infectious Diseases, 4 credit hours, 11 students enrolled, On Campus.
BIOL 440, Infectious Diseases, 0 credit hours, 11 students enrolled, On Campus.
BIOL 840, Infectious Diseases, 3 credit hours, 28 students enrolled, Web Based.
BIOL 840P, Infectious Diseases, 4 credit hours, 1 students enrolled, On Campus.
BIOL 840P, Infectious Diseases, 0 credit hours, 1 students enrolled, On Campus.

**Spring 2012**
BIOL 400, Microbiology, 4 credit hours, 7 students enrolled, On Campus.
BIOL 400, Microbiology, 0 credit hours, 7 students enrolled, On Campus.
BIOL 400H, Microbiology, 4 credit hours, 4 students enrolled, On Campus.
BIOL 400H, Microbiology, 0 credit hours, 4 students enrolled, On Campus.
BIOL 812, Microbial Diversity, 3 credit hours, 27 students enrolled, Web Based.

**Summer 2012**
BIOL 211, Human Microbio, 4 credit hours, 19 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 19 students enrolled, On Campus.

**Fall 2012**
BIOL 830P, Special Topics in Biology, 2 credit hours, 25 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 2 credit hours, 15 students enrolled, Web Based.
BIOL 840, Infectious Diseases, 3 credit hours, 25 students enrolled, Web Based.

**Spring 2013**
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 804, Evolution of Epidemics, 3 credit hours, 27 students enrolled, Web Based.

**Fall 2013**
BIOL 211, Human Microbio, 0 credit hours, 20 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 19 students enrolled, On Campus.
BIOL 440, Infectious Diseases, 4 credit hours, 19 students enrolled, On Campus.
BIOL 440, Infectious Diseases, 0 credit hours, 19 students enrolled, On Campus.
BIOL 440H, Infectious Diseases, 4 credit hours, 2 students enrolled, On Campus.
BIOL 440H, Infectious Diseases, 0 credit hours, 2 students enrolled, On Campus.
BIOL 840, Infectious Diseases, 3 credit hours, 25 students enrolled, Web Based.
BIOL 840P, Infectious Diseases, 4 credit hours, 3 students enrolled, On Campus.
BIOL 840P, Infectious Diseases, 0 credit hours, 3 students enrolled, On Campus.

Spring 2014
BIOL 211, Human Microbio, 0 credit hours, 22 students enrolled, On Campus.
BIOL 211, Human Microbio, 0 credit hours, 22 students enrolled, On Campus.
BIOL 812, Microbial Diversity, 3 credit hours, 19 students enrolled, Web Based.
BIOL 840, Infectious Diseases, 3 credit hours, 19 students enrolled, Web Based.

Fall 2014
BIOL 440, Infectious Diseases, 4 credit hours, On Campus.
BIOL 440, Infectious Diseases, 0 credit hours, On Campus.
BIOL 440H, Infectious Diseases, 4 credit hours, On Campus.
BIOL 440H, Infectious Diseases, 0 credit hours, On Campus.
BIOL 840, Infectious Diseases, 3 credit hours, Web Based.
BIOL 840, Infectious Diseases, 3 credit hours, Web Based.

Directed Student Learning
Master's Thesis Committee Chair, Biology. (August 2014 - Present).
Advised: Tashia Anderson
Supervised Research - GRAD, Biology. (May 2014 - Present).
Advised: Deron Anderson
Supervised Research - GRAD, Biology. (May 2014 - Present).
Advised: Elizabeth Hodges
Supervised Research - GRAD, Biology. (May 2014 - Present).
Advised: Laura Molyneux
Advised: Corrie Kezer
Advised: Miranda Ostrowski
Advised: Timothy Tisdale
Supervised Research - GRAD, "Temperature effects of coliforms in standing water on farms in Shelby County, AL." (August 2013 - Present).
Advised: Brittany Knight
Supervised Research - UGRD, "Quantification of siderophores from bacteria isolated from alkaline lakes." (August 2013 - Present).
Advised: Estrella Monrroy
Advised: Rebecca Pawlak

Master's Thesis Committee Member. (August 2012 - Present).
Advised: Li Wang

Advised: Laura Woodrum

Master's Thesis Committee Member, Biology. (August 2012 - May 2014).
Advised: Adrienne Conley

Master's Thesis Committee Member, Biology. (August 2012 - May 2014).
Advised: Kellie Licking

Advised: Amy Stewart

Advised: Julie Kilbride

Advised: Kendra Harbison

Advised: Blair Smith-Ries

SSRP--High school student, "Quantification of nitrogen and phorsphorus in sand pit lakes." (May 2013 - July 2013).
Advised: Ashlie Monte

SSRP--High school teacher, "Quantification of nitrogen and phorsphorus in sand pit lakes." (May 2013 - July 2013).
Advised: Kandra Auwerda

Advised: Parth Chaudhari

Advised: Ashley Cunningham

Advised: Melanie Briscoe

Advised: Kevin Ripp

Supervised Research - UGRD, "How effective are Clean Wave UV-C Portable Toothbrush Sanitizers in removing Streptococcus mitis from toothbrushes?," Foreign Language. (August 2012 - May 2013).
Advised: Rafaila Ramirez

Advised: Tyler Lee

Advised: Simon Wahla
Advised: Kathryn Krischke

Advised: Bich Tran

Master's Thesis Committee Member, Biology. (December 2012).
Advised: Seth Lundgren

Advised: Aaron Collins

Advised: Ben White

Advised: Hiroaki Ito

Advised: Clarissa Shearer

Advised: Penni Beitzel

Master's Thesis Committee Member, Biology. (May 2012).
Advised: Ethan Cordes

Advised: Lana LaBore

Advised: Toure Laukon

Advised: Travis Claybrooks

Advised: Lance Gunderson

Advised: Gretchen Clevenger

Advised: Danielle Mowinkle

Advised: Casey Schroeder

Advised: Diana Romero
Advised: Jason Moir

Master's Thesis Committee Member, Business Administration. (July 2011).
Advised: Martha Montanez

Master's Thesis Committee Member, Biology. (July 2011).
Advised: Shelly McPherron

Advised: Deysy Zamora

Advised: Cory Shield

Advised: Amanda Fields

Advised: Tonia Lowe

Advised: Marcelle Strydom

Scholarship

Intellectual Contributions


Presentations


Harbison, K. J. (Author & Presenter), Shaffer, J. J. (Author). Eleventh Annual Fall Student Research Symposium, "Bacterial isolates of Kokjohn pond in western Nebraska Sandhills," Kearney, NE. (2012).

Bartle, J. (Panelist), Rice, M. (Panelist), Shaffer, J. J. (Panelist). Graduate College Workshop, "Institutionally adapting to the new graduate student," University of Nebraska, Omaha, NE. (2012).


Contracts, Fellowships, Grants, and Sponsored Research

Currently Under Review

Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), "Nebraska Training Network and Functional Genomics", Project Title: “Bridge Funding”, Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $2,344,723.00. (August 2014 - August 2015).

Funded

Peterson, B. C. (Co-Principal), Shaffer, J. J. (Principal), Koupal, K. D. (Co-Principal), "Monitoring the aquatic health of sandhill lakes in Brown County, NE," Grant, Sponsored by Daugherty Water for Food Institute Undergraduate Scholars Award, State, $14,570.00. (August 2014 - August 2015).

Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), "Supplement to INBRE Grant – Summer Bridge Funding from UNMC to support INBRE Scholars," Grant, Sponsored by UNMC, State, $8,900.00. (July 2014 - September 2014).

Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), Reichart, L. M. (Co-Principal), Bourret, T. J. (Co-Principal), Panaitof, S. C. (Co-Principal), "Nebraska Training Network and Functional Genomics," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $1,275,620.00. (April 2009 - March 2014).
Shaffer, J. J. (Supporting), "Nebraska Training Network and Functional Genomics," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $1,275,620.00. (April 1, 2009 - March 31, 2014).

Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shaffer, J. J. (Co-Principal), Simon, D. M. (Co-Principal), "Administrative Supplement Notice for Students and Science Educators under the Recovery Act", Project Title: "Nebraska Training Network and Functional Genomics", Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $142,516.00. (July 2009 - September 2011).

Shaffer, J. J. (Supporting), "Nebraska Training Network and Functional Genomics: Administrative supplement notice for students and science educators under the recovery act," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $142,516.00. (July 1, 2009 - June 30, 2011).

Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Simon, D. M. (Co-Principal), Shaffer, J. J. (Co-Principal), "Supplement to INBRE Grant Renewal Year 1: Purchase of multiple pieces of equipment," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $54,838.00. (2010).

Shaffer, J. J. (Co-Principal), Plantz, B. A. (Co-Principal), "Understanding microbial communities in hyper alkaline-saline sandhills lakes as an indicator of global warming," Grant, Sponsored by NE Water Center/USGS, State, $60,266.00. (March 1, 2009 - February 1, 2010).

Service

Professional Memberships
Sigma Xi. (2007 - Present).
National Association of Biology Teachers. (2006 - Present).
Association of College and University Biology Educators. (2003 - Present).

Academic Advising
Master's Thesis Committee Chair, Biology. (August 2014 - Present).
Advised: Tashia Anderson

Master's Thesis Committee Member. (August 2012 - Present).
Advised: Li Wang

Master's Thesis Committee Member, Biology. (August 2012 - May 2014).
Advised: Adrienne Conley

Master's Thesis Committee Member, Biology. (August 2012 - May 2014).
Advised: Kellie Licking

Master's Thesis Committee Member, Biology. (December 2012).
Advised: Seth Lundgren

Master's Thesis Committee Member, Biology. (May 2012).
Advised: Ethan Cordes

Master's Thesis Committee Member, Business Administration. (July 2011).
Advised: Martha Montanez

Master's Thesis Committee Member, Biology. (July 2011).
Advised: Shelly McPherron

2013-2014
Undergraduate Students Advised: 5
Graduate Students Advised: 13

Service – Department
Faculty mentor, Faculty mentor. (May 2012 - Present).
Committee Chair, Science Day at UNK. (2012 - Present).
Committee Member, Biology Department Peer-review Committee. (2011 - Present).
Committee Chair, Graduate Committee. (August 2010 - Present).
Committee Chair, Lab Fees. (August 2004 - Present).
Tour Guide, Health Science Career Fair. (October 2012).
Committee Chair, Public Health Asst Professor Search. (September 2011 - March 2012).
Committee Member, Biology Department Curriculum Committee. (2004 - 2010).
Committee Member, Biology Department Graduate Committee. (2001 - 2010).

**Service – College**
Committee Member, UNK Health Advisory Committee. (2012 - Present).
Committee Member, KHOP Selection Committee–medicine. (2010 - Present).
Committee Member, Chemistry Department Promotion. (2013).
Committee Member, Post Tenure Review Committee. (2012).
Committee Member, Health Science Program Review. (2011).
Committee Member, Chemistry Department Promotion Committee. (2010).
Committee Member, CSIS Department Promotion Committee. (2010).
CNSS Representative, Graduate Studies and Research Program Review. (2010).
Faculty representative, Talked to Representative Glohr. (2010).

**Service – University**
Committee Member, Presidential Search Committee. (May 2014 - Present).
Committee Member, Grievance Committee. (2013 - Present).
Committee Member, Graduate Council. (2002 - Present).
Committee Member, Executive Graduate Council. (2005 - 2014).
Committee Member, UNK Steering Committee. (2004 - 2014).
Committee Member, History Academic Program Review. (2013).
Committee Member, NCA Preparation Team: Criterion 2. (2012 - 2013).
Committee Member, Director of the Office of Sponsored Programs Search. (September 2012 - April 2013).
Committee Member, Pratt-Heins Foundation Awards Selection Committee. (2011 - 2012).
Committee Member, MS in Emergency Preparedness Review at UNMC. (January 2012).
Faculty representative, President's Legislative dinner. (2011).
Faculty representative, UNK Showcase. (2011).
CPR and AED Trained Faculty for Bruner Hall. (2005 - 2011).
Presenter, Chancellor's Evening Celebrating the University of Nebraska at Kearney. (April 2011).
Presenter, President's Annual Legislative dinner. (March 2011).

**Service – Professional**
Officer, President/Elect/Past, Missouri-Valley Branch of the American Society of Microbiology. (2009 - 2013).

**Service – Public**
Guest Speaker, Advanced PLT, WET and Wild Educator Workshop. (July 2001 - Present).
Faculty advisor, High school science fair projects. (2010).
Faculty advisor, Middle school science fair project in Kentucky. (2010).

Other

Faculty Development Activities Attended

Meet and greet of STEM educators in NU system, "NU STEM Education meeting," NU system office, Ashland, NE, State. (May 16, 2013 - Present).

Workshop, "IMG-ACT training," Department of Energy Joint Genome Institute, Chamberlain, SD, Regional. (November 17, 2012 - November 18, 2012).
Professor Joseph T. Springer  
Biology  
(308) 895-8920  
Email: springerj@unk.edu

**Academic Degrees**
PhD, Washington State University, 1977.  
Major: Zoology  
MS, Washington State University, 1976.  
Major: Wildlife Biology  
BA, Knox College, 1971.  
Major: Biology

**Licensures and Certifications**

**Administrative Data – Permanent**
Starting Rank: Professor  
Start Date at University of Nebraska at Kearney: August 27, 1979  
Date Attained Rank of Assistant Professor: August 27, 1979  
Date Attained Rank of Associate Professor: August 15, 1985  
Date Attained Rank of Full Professor: August 15, 1994  
Tenure Decision Date: August 1, 1985

**Teaching**

**Scheduled Teaching**

**Fall 2010**
BIOL 474, Mammalogy, 3 credit hours, 11 students enrolled, On Campus.  
BIOL 474, Mammalogy, 0 credit hours, 11 students enrolled, On Campus.

**Spring 2011**
BIOL 201, Fund Tools for Biologic Stds, 2 credit hours, 12 students enrolled, On Campus.  
BIOL 462, Animal Behavior, 3 credit hours, 18 students enrolled, On Campus.  
BIOL 462, Animal Behavior, 0 credit hours, 18 students enrolled, On Campus.

**Summer 2011**
BIOL 862P, Animal Behavior, 3 credit hours, 25 students enrolled, Web Based.

**Fall 2011**
BIOL 330, Wildlife Conservation, 3 credit hours, 23 students enrolled, On Campus.  
BIOL 330, Wildlife Conservation, 0 credit hours, 23 students enrolled, On Campus.

**Spring 2012**
BIOL 405, Range & Wildlife Mgt, 3 credit hours, 24 students enrolled, On Campus.  
BIOL 405, Range & Wildlife Mgt, 0 credit hours, 24 students enrolled, On Campus.
BIOL 805P, Range & Wildlife Mgt, 3 credit hours, 2 students enrolled, On Campus.
BIOL 805P, Range & Wildlife Mgt, 0 credit hours, 2 students enrolled, On Campus.

**Summer 2012**
BIOL 869, Conserv Birds & Mammals, 3 credit hours, 25 students enrolled, Web Based.

**Spring 2013**
BIOL 462, Animal Behavior, 3 credit hours, 19 students enrolled, On Campus.
BIOL 462, Animal Behavior, 0 credit hours, 19 students enrolled, On Campus.

**Summer 2013**
BIOL 462, Animal Behavior, 3 credit hours, 1 students enrolled, Web Based.
BIOL 462, Animal Behavior, 0 credit hours, 1 students enrolled, Web Based.
BIOL 862P, Animal Behavior, 3 credit hours, 25 students enrolled, Web Based.

**Fall 2013**
BIOL 330, Wildlife Conservation, 3 credit hours, 25 students enrolled, On Campus.
BIOL 330, Wildlife Conservation, 0 credit hours, 25 students enrolled, On Campus.
BIOL 421, Sen Sem Biol, 1 credit hours, 1 students enrolled, On Campus.

**Spring 2014**
BIOL 405, Range & Wildlife Mgt, 3 credit hours, 25 students enrolled, On Campus.
BIOL 405, Range & Wildlife Mgt, 0 credit hours, 25 students enrolled, On Campus.
BIOL 421, Sen Sem Biol, 1 credit hours, 2 students enrolled, On Campus.
BIOL 430, Special Topics in Biology, 1 credit hours, 1 students enrolled, On Campus.
BIOL 430, Special Topics in Biology, 3 credit hours, 1 students enrolled, On Campus.

**Summer 2014**
BIOL 430, Special Topics in Biology, 3 credit hours, 1 students enrolled, On Campus.
BIOL 869, Conserv Birds & Mammals, 3 credit hours, 20 students enrolled, Web Based.

**Fall 2014**
BIOL 421, Sen Sem Biol, 1 credit hours, On Campus.

**Directed Student Learning**
Master’s Thesis Committee Chair, Biology. (August 21, 2013 - Present). 
Advised: Jennifer Frisch
"Rainwater Basin as habitat islands for small mammals..", Biology. (May 15, 2012 - December 5, 2013). 
Advised: August Wilson
Advised: Jennifer Frish

**Scholarship**

**Intellectual Contributions**


**Presentations**


**Contracts, Fellowships, Grants, and Sponsored Research**

**Funded**

Jacques, B. J. (Co-Principal), Carlson, K. A. (Co-Principal), Springer, J. T. (Co-Principal), Petersen, J. L. (Co-Principal), "Open access textbook pilot," Grant, Sponsored by NU System, Other, $50,000.00. (January 2015 - Present).

**Service**

**Administrative Assignments**

Department Chairperson, Department. (August 15, 2011 - Present).

**Professional Memberships**

Nebraska Academy of Science. (1990 - Present).
Sigma Xi. (1989 - Present).

**Academic Advising**

Master’s Thesis Committee Chair, Biology. (August 21, 2013 - Present).
Advised: Jennifer Frisch

**2013-2014**

Undergraduate Students Advised: 38
Graduate Students Advised: 1
Dr. Janet E. Steele  
Biology  
(308) 865-8325  
Email: steelej@unk.edu

**Academic Degrees**
PhD, Miami University, 1991.  
- Major: Zoology (Physiology)  
  - Dissertation Title: Effects of swim-training and footshock stress on autonomic nervous system activity in female borderline hypertensive rats

- Major: Environmental Biology  
  - Dissertation Title: Breeding bird census in woodland habitat

BS, Eastern Illinois University, 1986.  
- Major: Botany (with teacher certification)

BS, Texas A&M University, 1984.  
- Major: Bioenvironmental Science

**Licensures and Certifications**
Controlled substance registration certificate, United States Department of Justice. (November 11, 2011 - May 31, 2014).

**Administrative Data – Permanent**
Starting Rank: Associate Professor  
Start Date at University of Nebraska at Kearney: August 16, 1993  
Date Attained Rank of Associate Professor: August 17, 1998  
Date Attained Rank of Full Professor: August 15, 2005  
Tenure Decision Date: August 1, 1999

**Academic, Government, Military and Professional Positions**
Courtesy Adjunct Associate Professor, Department of Cell Biology and Anatomy, University of Nebraska Medical Center, Academic - Post-Secondary. (2002 - 2007).  

**Awards and Honors**
Pratt-Heins Foundation Faculty Award in Teaching, Teaching, University. (August 2014).  

**Teaching**

**Scheduled Teaching**

**Fall 2010**
FIOL 225, Anatomy/Physiology, 4 credit hours, 55 students enrolled, On Campus.  
BIOL 225, Anatomy/Physiology, 4 credit hours, 118 students enrolled, On Campus.  
BIOL 225, Anatomy/Physiology, 0 credit hours, 23 students enrolled, On Campus.

**Spring 2011**
BIOL 226, Anat/Physio, 4 credit hours, 38 students enrolled, On Campus.
BIOL 226, Anat/Physio, 4 credit hours, 93 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 20 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 22 students enrolled, On Campus.

Summer 2011
BIOL 858, Physiology of Stress, 3 credit hours, 27 students enrolled, Web Based.

Fall 2011
BIOL 225, Anatomy/Physiology, 4 credit hours, 79 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 4 credit hours, 134 students enrolled, On Campus.

Spring 2012
BIOL 226, Anat/Physio, 4 credit hours, 43 students enrolled, On Campus.
BIOL 226, Anat/Physio, 4 credit hours, 120 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 17 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 21 students enrolled, On Campus.

Summer 2012
BIOL 858, Physiology of Stress, 3 credit hours, 30 students enrolled, Web Based.

Fall 2012
BIOL 225, Anatomy/Physiology, 4 credit hours, 78 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 4 credit hours, 172 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 24 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 24 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 24 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 23 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 16 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 22 students enrolled, On Campus.

Spring 2013
BIOL 226, Anat/Physio, 4 credit hours, 44 students enrolled, On Campus.
BIOL 226, Anat/Physio, 4 credit hours, 138 students enrolled, On Campus.

Summer 2013
BIOL 858, Physiology of Stress, 3 credit hours, 29 students enrolled, Web Based.

Fall 2013
BIOL 225, Anatomy/Physiology, 4 credit hours, 60 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 4 credit hours, 164 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 21 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 22 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 18 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 17 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 22 students enrolled, On Campus.
BIOL 225, Anatomy/Physiology, 0 credit hours, 17 students enrolled, On Campus.

Spring 2014
BIOL 226, Anat/Physio, 4 credit hours, 35 students enrolled, On Campus.
BIOL 226, Anat/Physio, 4 credit hours, 140 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 22 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 22 students enrolled, On Campus.

Summer 2014
BIOL 858, Physiology of Stress, 3 credit hours, 15 students enrolled, Web Based.

Directed Student Learning
Advised: Blake Brouilette
Advised: Kelly Messbarger
Advised: Robert Kirkland
Directed Individual, "A survey of fruits eaten by Tapirus terrestris, the lowland tapir, based on the presence of seeds in the feces in the Cerrado region of Mato Grosso, Brazil," Biology. (December 2014).
Advised: Angela Cayce
Directed Individual, "Characterization of the spatial distribution of the aquatic caterpillar, Petrophila sp, in streams of the Cerrado of Brazil," Biology. (December 2014).
Advised: Anna-Marie Easley
Advised: Destin Rutherford
Directed Individual, "Influence of environmental pH on goldfish (Carassius auratus) white blood cell counts," Biology. (December 2014).
Advised: Dustin Franklin
Directed Individual, "Effects of pasture rotation on plant biomass in the Cerrado Highlands," Biology. (December 2014).
Advised: Julia Brown
Directed Individual, "A comparison study of online biology students to face to face biology students at a community college," Biology. (December 2014).
Advised: Karla Duncan
Advised: Margaret McCord
Advised: Stephanie Brubeck

Directed Individual, "Occurrence of acute mountain sickness (AMS) at Mount Mitchell, NC (altitude 2037m)," Biology. (August 2014). Advised: David East


Directed Individual, "Effect of caffeinated beverages on spontaneous activity in laboratory mice (Mus musculus)," Biology. (June 2013 - December 2013). Advised: Samuel Swartz


Directed Individual, "Feasibility Study of Glycated Hemoglobin Levels to Determine the Average Blood Glucose in Equine Samples," Biology. (May 2013). Advised: Carrie Buckley

Directed Individual, Biology. (May 2013). Advised: Robert Caballero


Advised: Scott Christensen

Directed Individual, "The effects of comparison between muscle manipulation and joint malalignment adjustment techniques on the range of motion of osteoarthritic knees," Biology. (December 2012).
Advised: Yumiko Muroi

Master's Thesis Committee Member, "Corticosterone levels in sub-adult and family groups of whooping cranes (Grus americana) in winder locations of Lamar Penninsula, TX," Biology. (December 2012).
Advised: Mery Casady

Advised: Kyle Gibbens

Advised: Desiree Assemain

Advised: Thea Baum

Directed Individual, Biology. (January 2012 - September 2012).
Advised: Jacqueline Nunez

Directed Individual, "The role of hypoxia inducible factors on long term potentiation during hypoxia," Biology. (August 2012).
Advised: Kirsty Conn

Advised: Samantha Kramer

Directed Individual, "Moderate altitude to sea level de-acclimatization and re-acclimatization: effect of class year during winter break," Biology. (May 2012).
Advised: Courtney Hemmert

Advised: Timothy Cifelli

Advised: Brett Schaepler

Advised: Chris Deans

Directed Individual, "Role that an interest in pre-health related studies has on basic health knowledge," Biology. (August 2011 - March 2012).
Advised: Megan Null

Advised: Amanda Wakeman

Advised: Christopher Dorey

Advised: Jenna Simpson
Advised: Jennifer Mestres

Advised: Katie Larghe

Advised: Suzannah Schmidt

Directed Individual, "Evidence of trailing behavior by the grain mite, Acarus siro," Biology. (November 2011).
Advised: Brian Sass

Advised: Amanda Zachritz

Advised: Amber Samuel

Advised: Nicole Yambrick

Advised: Raymond Dann

Advised: Amy Troyer

Advised: Audra Kennedy

Directed Individual, "Survey on the role that formal and non-formal education plays on individuals’ decision making regarding the dangers of sun exposure," Biology. (May 2011).
Advised: Chad Springer

Advised: Mathew Day

Advised: Rebecca Liberty

Directed Individual, "Influence of soy protein and exercise on testosterone levels in male rats," Biology. (December 2010).
Advised: Jarod Weidner

Directed Individual, "Impacts of the zoo environment on the stress response of captive felid and pachyderm species at the Brookfield Zoo," Biology. (December 2010).
Advised: Jocelyn Bryant

Directed Individual, "Marine diatoms from the western Pacific island of Guam found with farmer fish territories," Biology. (December 2010).
Advised: Lydell Lopez

Directed Individual, "Influence of smoking on visions disorders."
Advised: Nicole Obermeier

Advised: Jayme Dozier
Directed Individual, "In vivo specular microscopic tracking of endothelial cell loss and subsequent regeneration in the central cornea of albino rabbits," Biology. (August 2010).
Advised: Nicholas Langevin

Advised: Pam Buie

Advised: Richard Morishige

Advised: Samuel Murry

Advised: Adam Schapmann

Advised: Anne Massey

Advised: John Shoup

Advised: Luann Shoemaker

Scholarship

Intellectual Contributions


Presentations


Contracts, Fellowships, Grants, and Sponsored Research

Funded


Service

Professional Memberships

Foundation for Biomedical Research. (1993 - Present).
American Physiological Society. (1990 - Present).
*Academic Advising*

Master's Thesis Committee Member, "Corticosterone levels in sub-adult and family groups of whooping cranes (Grus americana) in wandering locations of Lamar Peninsula, TX," Biology. (December 2012).
Advised: Mery Casady

2009-2010
Undergraduate Students Advised: 18

2010-2011
Undergraduate Students Advised: 15
Graduate Students Advised: 331

2011-2012
Undergraduate Students Advised: 12
Graduate Students Advised: 396

2012-2013
Undergraduate Students Advised: 6
Graduate Students Advised: 432

2013-2014
Undergraduate Students Advised: 3
Graduate Students Advised: 442

*Service – Department*

Committee Member, Biology Graduate Assessment Committee. (2011 - Present).
Committee Chair, Biology Graduate Research Committee. (2011 - Present).
Director, Distance MS Program. (2010 - Present).
Secretary, Department of Biology department meetings. (2000 - Present).
Committee Member, Biology Department Graduate Committee. (1998 - Present).
Department of Biology Search Committees. (1996 - Present).

*Service – College*

Committee Member, CNSS Rank and Tenure. (October 2013 - Present).
Committee Chair, Institutional Animal Care and Use Committee. (September 2013 - Present).
Committee Member, Health Sciences Advisory Committee. (1993 - Present).
Regional Science Fair Judge. (March 11, 2014).
KHOP Building Tour. (December 17, 2013).
Health Sciences Fair Building Tours. (October 9, 2013).
Blue and Gold Showcase. (August 2013).
Committee Member, R&T Committee for Dr. Annette Moser. (2012).
Committee Member, R&T Committee for Dr. Syed Hossain. (2011 - 2012).
Committee Chair, R&T Committee for Dr. Syed Hossain. (2010 - 2011).
Service – University
Committee Member, Allied Health Science Education Strategic Planning / Building Committee. (2012 - Present).
Committee Member, Reaccreditation Criterion 4 team (Teaching and Learning). (2012 - 2013).
Committee Member, Health Science Education Complex Naming Committee. (2012).
Committee Member, UNK Strategic Planning Committee. (2004 - 2012).
Secretary, Faculty Senate Athletic Committee. (2003 - 2010).

Service – Professional
Keith David Koupal  
Biology  
Email: KOUPALKD@UNK.EDU

Administrative Data – Permanent  
Starting Rank: Lecturer  
Start Date at University of Nebraska at Kearney: August 16, 2004  
Date Attained Rank of Lecturer: August 16, 2004  

Teaching  
Scheduled Teaching

Spring 2011  
BIOL 884, Freshwater Management Techniq, 3 credit hours, 27 students enrolled, Web Based.

Spring 2012  
BIOL 884, Freshwater Management Techniq, 3 credit hours, 11 students enrolled, Web Based.

Summer 2011  
BIOL 863, Biological Perspectives, 3 credit hours, 16 students enrolled, Web Based.

Summer 2012  
BIOL 863, Biological Perspectives, 3 credit hours, 14 students enrolled, Web Based.

Spring 2013  
BIOL 884, Freshwater Management Techniq, 3 credit hours, 17 students enrolled, Web Based.

Summer 2013  
BIOL 863, Biological Perspectives, 3 credit hours, 7 students enrolled, Web Based.

Fall 2013  
BIOL 884, Freshwater Management Techniq, 3 credit hours, 6 students enrolled, On Campus.  
BIOL 884, Freshwater Management Techniq, 3 credit hours, 17 students enrolled, Web Based.

Fall 2014  
BIOL 884, Freshwater Management Techniq, 3 credit hours, Web Based.

Scholarship  
Intellectual Contributions


**Presentations**


Society, "Picking from the menu: age - 0 walleye food habits and ontogenetic diet. d," Joint Meeting with the Esocid and Centrachid Technical Committees, La Crosse, WI. (July 2014).


Schissel, A. (Author & Presenter), Siegel, C. (Author), Peterson, B. C. (Author), Koupal, K. D. (Author). 14th Annual Student Research Day, "Longevity of Mineral Supplements with in the Soil and Associated Use by White-tailed Deer (Odocoileus virginianus)," University of Nebraska at Kearney, Kearney, Nebraska. (April 2012).


Sullivan, C. L. (Author & Presenter), Uphoff, C. S. (Author), Koupal, K. D. (Author), Hoback, W. W. (Author). Nebraska Chapter of the American Fisheries Society, "Assessment of Water Quality and Response Rate of Zooplankton in a Nebraska "Borrow Pit" after Rotenone Application.," Ponca, Nebraska. (February 2010).

Katt, J. (Author & Presenter), Koupal, K. D. (Author), Schoenebeck, C. W. (Author), Peterson, B. C. (Author), Hoback, W. W. Nebraska Chapter of the American Fisheries Society, "Changes in walleye egg density and adult abundances due to the addition of cobble substrate in Sherman Reservoir.," Ponca, Nebraska. (February 2010).


Olds, B. (Author & Presenter), Peterson, B. C. (Author), Koupal, K. D. (Author), Farnsworth Hoback, K. M. (Author), Schoenebeck, C. W. (Author), Hoback, W. W. (Author). Nebraska Chapter of the American Fisheries Society, "Unexpected changes in turbidity and chlorophyll in a Nebraska reservoir following severe drought.," Ponca, Nebraska. (February 2010).
Contracts, Fellowships, Grants, and Sponsored Research

Hoback, W. W. (Co-Principal), Koupal, K. D. (Co-Principal), "Re-establishment of plains topminnow in historical locations.,” Grant, Sponsored by Nebraska Game and Parks, State, $26,400.00. (2010 - 2011).

Funded
Schoenebeck, C. W. (Co-Principal), Koupal, K. D. (Co-Principal), "Production of yellow perch in Nebraska lakes," Grant, Sponsored by Nebraska Game and Parks Sport Fisheries Fund, State, $331,245.00. (2010 - 2015).
Peterson, B. C. (Co-Principal), Shaffer, J. J. (Principal), Koupal, K. D. (Co-Principal), "Monitoring the aquatic health of sandhill lakes in Brown County, NE," Grant, Sponsored by Daugherty Water for Food Institute Undergraduate Scholars Award, State, $14,570.00. (August 2014 - August 2015).
Hoback, W. W. (Co-Principal), Schoenebeck, C. W. (Co-Principal), Koupal, K. D. (Co-Principal), "Limnological assessment of Harlan County Reservoir 2010-1014," Grant, Sponsored by Nebraska Game and Parks Sport Fisheries Fund, State, $472,744.00. (2010 - 2014).
Hoback, W. W. (Co-Principal), Koupal, K. D. (Co-Principal), "Re-establishment of plains topminnow in historical locations," Grant, Sponsored by Nebraska Game and Parks, State, $26,400.00. (January 2013).
Dr. Letitia M. Reichart  
Biology  
(308) 865-8568  
Email: reichartlm@unk.edu

**Academic Degrees**

PhD, Washington State University, 2008.  
Major: Zoology  
Dissertation Title: Conspecific Brood Parasitism In Ruddy Ducks (Oxyura jamaicensis)

Major: Biology  
Supporting Areas of Emphasis: Chemistry

**Administrative Data – Permanent**

Starting Rank: Assistant Professor  
Start Date at University of Nebraska at Kearney: August 17, 2009  
Date Attained Rank of Assistant Professor: August 17, 2009

**Academic, Government, Military and Professional Positions**

Assistant Professor of Biology, University of Nebraska Kearney, Professional/Managerial. (August 2009 - Present).  
Lecturer, Washington State University, Professional/Managerial. (August 2008 - July 2009).  
Graduate Teaching Assistant, Washington State University, Professional/Managerial. (August 2001 - July 2008).

**Awards and Honors**

Faculty/Staff Of The Year Award, National Residence Hall Honorary (UNK). (2011).  
Faculty/Staff of the Month Award, National Residence Hall Honorary (UNK). (February 2011).  
Elected Member of Sigma XI, University of Nebraska at Kearney Chapter of the Society. (2010).

**Teaching**

**Scheduled Teaching**

**Fall 2010**

BIOL 105, Biology I, 4 credit hours, 191 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 24 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Stds, 2 credit hours, 16 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Stds, 2 credit hours, 15 students enrolled, On Campus.
BIOL 830P, Spec Topics In Biology, 2 credit hours, 14 students enrolled, Web Based.

**Spring 2011**

BIOL 106, Biology II, 0 credit hours, 22 students enrolled, On Campus.
BIOL 106, Biology II, 0 credit hours, 20 students enrolled, On Campus.
BIOL 834, Conservation Biology, 3 credit hours, 26 students enrolled, Web Based.

**Fall 2011**

BIOL 105, Biology I, 4 credit hours, 188 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 23 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 24 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 16 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 15 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 0 credit hours, 16 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 0 credit hours, 15 students enrolled, On Campus.
BIOL 430, Special Topics in Biology, 1 credit hours, 1 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 1 credit hours, 25 students enrolled, Web Based.

Spring 2012
BIOL 106, Biology II, 0 credit hours, 23 students enrolled, On Campus.
BIOL 106, Biology II, 0 credit hours, 17 students enrolled, On Campus.
BIOL 473, Ornithology, 3 credit hours, 13 students enrolled, On Campus.
BIOL 473, Ornithology, 0 credit hours, 13 students enrolled, On Campus.
BIOL 873P, Ornithology, 3 credit hours, 1 students enrolled, On Campus.
BIOL 873P, Ornithology, 0 credit hours, 1 students enrolled, On Campus.

Fall 2012
BIOL 105, Biology I, 4 credit hours, 182 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 18 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 21 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 16 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 15 students enrolled, On Campus.
BIOL 830P, Special Topics in Biology, 2 credit hours, 20 students enrolled, Web Based.

Spring 2013
BIOL 106, Biology II, 0 credit hours, 22 students enrolled, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, 11 students enrolled, On Campus.
BIOL 834, Conservation Biology, 3 credit hours, 25 students enrolled, Web Based.

Fall 2013
BIOL 105, Biology I, 4 credit hours, 162 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 21 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 20 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 19 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 18 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 19 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 20 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 20 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 17 students enrolled, On Campus.
BIOL 105, Biology I, 0 credit hours, 8 students enrolled, On Campus.

Spring 2014
BIOL 106, Biology II, 4 credit hours, 137 students enrolled, On Campus.
BIOL 106, Biology II, 0 credit hours, 23 students enrolled, On Campus.
BIOL 473, Ornithology, 3 credit hours, 12 students enrolled, On Campus.
BIOL 473, Ornithology, 0 credit hours, 12 students enrolled, On Campus.
BIOL 873P, Ornithology, 3 credit hours, 1 students enrolled, On Campus.
BIOL 873P, Ornithology, 0 credit hours, 1 students enrolled, On Campus.

Summer 2014
BIOL 830P, Special Topics in Biology, 3 credit hours, 10 students enrolled, Web Based.

Fall 2014
BIOL 105, Biology I, 4 credit hours, On Campus.
BIOL 105, Biology I, 0 credit hours, On Campus.
BIOL 105, Biology I, 0 credit hours, On Campus.
BIOL 201, Fund Tools for Biologic Studs, 2 credit hours, On Campus.

Directed Student Learning
Advised: Krissa Lewandowski
Directed Individual, "Use of the Surrogator brooding device to increase sustainable populations of ring-necked pheasants (Phasianus colchicus) in Nebraska," Biology. (January 2013 - Present).
Advised: Ashley Classen
Advised: Deqa Hassan
Master's Thesis Committee Member, Biology. (2012 - Present).
Advised: Anthony Bridger
Master's Thesis Committee Member, Biology. (2012 - Present).
Advised: Aric Buerer
Advised: James Webb
Advised: Jennifer Snavely Hadley
Directed Individual, "Song alterations in response to urban noise by the eastern phoebe (Sayornis phoebe) in southeastern Indiana," Biology. (May 2009 - Present).
Advised: Travis Wood
Advised: Jennifer Frisch
Advised: Staci Cahis
Master's Thesis Committee Chair, "Using lipid measures of spring migrating Northern Pintails (Anas acuta) to determine the success of current habitat management for food resources in the Rainwater Bain," Biology. (January 2011 - December 2013).
Advised: Dustin Casady
Master’s Thesis Committee Member, Biology. (2011 - 2013).
Advised: Pepper May
Advised: Jacob Newth
Advised: Amanda Hampton
Advised: Russell Hendricks
Advised: Amanda Hagstrom
Advised: Kaitlyn Bennett
Advised: Maria Rojas
Advised: Michele Sretch
Master’s Thesis Committee Member, Biology. (2011 - 2012).
Advised: Anna Barber
Master’s Thesis Committee Member, Biology. (2011 - 2012).
Advised: John Henderson
Master’s Thesis Committee Chair, "Corticosterone levels in sub-adult and family groups of Whooping Cranes (Grus americana) in wintering locations of Lamar Peninsula, Texas," Biology. (2010 - 2012).
Advised: Mery Casady
Master’s Thesis Committee Chair, "Rainwater basin seed availability, depletion, and waterfowl response during spring migration," Biology. (2009 - 2012).
Advised: Jeffery Drahota
Advised: Mandy Guinn
Advised: Suzanne Hardaswick
Advised: Peter Brown
Advised: Alisa Elliot
Advised: Chandler Schmidt
Master’s Thesis Committee Member, Biology. (2009 - 2011).
Advised: Mark Morten
Directed Individual, "Factors that affect nesting success of Dickcissles (Spiza americana) for actively managed and rested habitats in the central Platte River Valley, Nebraska," Biology. (August 2010 - August 2011).
Advised: Abdou KareKoona

Directed Individual, "A model for associated blood lead levels of Bald Eagles, the hunting season, and snowfall," Biology. (May 2010 - August 2011).
Advised: Ronald Lindblom

Advised: Andrea Sampson

Advised: Brittany Blanco

Advised: Kerry Stevens

Scholarship

Intellectual Contributions


Presentations


Contracts, Fellowships, Grants, and Sponsored Research


Reichart, L. M. (Co-Principal), Hendricks, R., "Foraging Cues of Siren lacertina, the Greater Siren," Sponsored Research, Sponsored by University of Nebraska Kearney, $500.00. (2010 - 2013).

Reichart, L. M. (Principal), Hagstrom, A. (Co-Principal), "Baseline Measures of Corticosterone in Red-winged Blackbird nestlings," Grant, Sponsored by University of Nebraska Kearney, $250.00. (August 2012 - May 2013).

Reichart, L. M. (Principal), Hagstrom, A. (Co-Principal), "Painted Turtle DNA Analysis," Grant, Sponsored by University of Nebraska Kearney, $125.00. (January 2011 - May 2013).

Reichart, L. M. (Co-Principal), Lindblom, R. (Principal), "An Association Between Blood Lead Levels of Bald Eagles and the Hunting Season in the Upper Mississippi River Valley," Sponsored Research, Sponsored by University of Nebraska Kearney, $301.00. (2011 - 2012).


Reichart, L. M. (Principal), Hagstrom, A. (Co-Principal), "Does handling time affect corticosterone levels in red-winged blackbird nestlings," Grant, Sponsored by University of Nebraska Kearney, $250.00. (May 2012 - September 2012).

Reichart, L. M. (Principal), Rojas, M. (Co-Principal), "Roundup Ready Eggs: Does glyphosate accumulate in eggs of birds nesting near agricultural crops in Nebraska?," Grant, Sponsored by University of Nebraska Kearney, $250.00. (May 2010 - August 2010).

Funded

Reichart, L. M. (Principal), Lewandowski, K. (Co-Principal), "Identification of genetic markers useful to measure genetic variability in two Painted Turtle populations," Grant, Sponsored by University of Nebraska Kearney, University of Nebraska at Kearney, $250.00. (August 2013 - Present).

Carlson, K. A. (Co-Principal), Turpen, J. (Principal), Shafter, J. J. (Co-Principal), Simon, D. M. (Co-Principal), Reichart, L. M. (Co-Principal), Bourret, T. J. (Co-Principal), Panaitof, S. C. (Co-Principal), "Nebraska Training Network and Functional Genomics," Grant, Sponsored by INBRE Program of the National Center for Research Resources/NIH, Federal, $1,275,620.00. (April 2009 - March 2014).

Service

Academic Advising

Master’s Thesis Committee Member, Biology. (2012 - Present).

Advised: Anthony Bridger

Master’s Thesis Committee Member, Biology. (2012 - Present).

Advised: Aric Buerer

Master’s Thesis Committee Chair, "Using lipid measures of spring migrating Northern Pintails (Anas acuta) to determine the success of current habitat management for food resources in the Rainwater Bain," Biology. (January
2011 - December 2013).
Advised: Dustin Casady
Master's Thesis Committee Member, Biology. (2011 - 2013).
Advised: Pepper May
Master's Thesis Committee Member, Biology. (2011 - 2012).
Advised: Anna Barber
Master's Thesis Committee Member, Biology. (2011 - 2012).
Advised: John Henderson
Master's Thesis Committee Chair, "Corticosterone levels in sub-adult and family groups of Whooping Cranes (Grus americana) in wintering locations of Lamar Peninsula, Texas," Biology. (2010 - 2012).
Advised: Mery Casady
Master's Thesis Committee Chair, "Rainwater basin seed availability, depletion, and waterfowl response during spring migration," Biology. (2009 - 2012).
Advised: Jeffery Drahota
Master's Thesis Committee Member, Biology. (2009 - 2011).
Advised: Mark Morten

**Service – Department**
Committee Chair, Undergraduate Research Committee. (2011 - Present).

**Service – College**
Committee Member, Honors Convocation Committee. (2012 - Present).

**Service – University**
Senator for Department of Biology, UNK Faculty Senate. (April 24, 2014 - Present).
Committee Member, Institutional Animal Care and Use Committee. (2013 - Present).
Committee Member, Undergraduate Research Council. (2010 - Present).
Faculty Advisor, UNK Biology Club. (2010 - Present).

**Service – Public**
Guest Speaker, Road Scholar Program, Gibbon and Kearney, NE. (March 2010 - March 2014).
Guest Speaker, Rowe Audubon Sanctuary. (2010 - September 2013).
Program Organizer, Kearney Area Children's Museum, Kearney, NE. (July 2013).
Guest Speaker, Fort Kearny, Kearney, NE. (June 2013).
Guest Speaker, Audubon Society, Gibbon, NE. (February 17, 2013).

**Other**

**Faculty Development Activities Attended**
Meghan E. Sindelar
Biology
Email: SINDELARME@UNK.EDU

Teaching

Scheduled Teaching

Fall 2013
BIOL 301, Intro to Soils, 4 credit hours, 18 students enrolled, On Campus.
BIOL 301, Intro to Soils, 0 credit hours, 18 students enrolled, On Campus.
BIOL 830P, Special Topics in Biology, 3 credit hours, 13 students enrolled, Web Based.

Spring 2014
BIOL 380, Agronomy, 3 credit hours, 25 students enrolled, On Campus.
BIOL 813, Issues in Bioethics, 3 credit hours, 20 students enrolled, Web Based.

Fall 2014
BIOL 877, Writing in the Sciences, 2 credit hours, Web Based.
Richard L. Simonson  
Biology  
(308) 865-8943  
Email: simonsonrl@unk.edu

**Academic Degrees**

MS, University of Nebraska at Kearney, 1999.  
Major: Biology  
Dissertation Title: Cloning and Sequencing of Glutamine Synthetase cDNAs from Celtis occidentals, Tribulus terrestris, and Juglans nigra  

BA, Concordia College, 1995.  
Major: Biology  
Supporting Areas of Emphasis: Chemistry

**Administrative Data – Permanent**

Starting Rank: Lecturer  
Start Date at University of Nebraska at Kearney: January 1, 2000  
Date Attained Rank of Lecturer: January 1, 2000  
Date Attained Rank of Senior Lecturer: January 1, 2004

**Academic, Government, Military and Professional Positions**

Research Specialist, University of North Dakota, Academic - Post-Secondary. (September 1, 1999 - December 20, 1999).

**Teaching**

**Scheduled Teaching**

**Fall 2010**

BIOL 109, Classroom Biology, 4 credit hours, 13 students enrolled, On Campus.  
BIOL 109, Classroom Biology, 0 credit hours, 13 students enrolled, On Campus.  
BIOL 211, Human Microbio, 0 credit hours, 20 students enrolled, On Campus.  
BIOL 211, Human Microbio, 0 credit hours, 19 students enrolled, On Campus.

**Spring 2011**

BIOL 109, Classroom Biology, 4 credit hours, 7 students enrolled, On Campus.  
BIOL 109, Classroom Biology, 0 credit hours, 8 students enrolled, On Campus.  
BIOL 188, GS Portal, 3 credit hours, 13 students enrolled, On Campus.

**Fall 2011**

BIOL 188, GS Portal, 3 credit hours, 30 students enrolled, On Campus.  
BIOL 211, Human Microbio, 0 credit hours, 20 students enrolled, On Campus.

**Spring 2012**

BIOL 103, Gen Biology, 4 credit hours, 143 students enrolled, On Campus.  
BIOL 103, Gen Biology, 4 credit hours, 143 students enrolled, On Campus.  
BIOL 188, GS Portal, 3 credit hours, 23 students enrolled, On Campus.
BIOL 811, Scientific Illustration, 3 credit hours, 26 students enrolled, Web Based.

Fall 2012
BIOL 188, GS Portal, 3 credit hours, 29 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 17 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 20 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 2 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 4 students enrolled, On Campus.
BIOL 388, GS Capstone, 3 credit hours, 8 students enrolled, On Campus.

Spring 2013
BIOL 188, GS Portal, 3 credit hours, 28 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 21 students enrolled, On Campus.
BIOL 226, Anat/Physio, 0 credit hours, 20 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 14 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 2 students enrolled, On Campus.
BIOL 388, GS Capstone, 3 credit hours, 24 students enrolled, On Campus.

Fall 2013
BIOL 188, GS Portal, 3 credit hours, 27 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 17 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 16 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 6 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 6 students enrolled, On Campus.
BIOL 388, GS Capstone, 3 credit hours, 21 students enrolled, On Campus.
BIOL 388H, GS Capstone, 3 credit hours, 1 students enrolled, On Campus.

Spring 2014
BIOL 188, GS Portal, 3 credit hours, 14 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 15 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 2 students enrolled, On Campus.
BIOL 388, GS Capstone, 3 credit hours, 20 students enrolled, On Campus.
BIOL 811, Scientific Illustration, 3 credit hours, 21 students enrolled, Web Based.

Fall 2014
BIOL 188, GS Portal, 3 credit hours, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, On Campus.
BIOL 388, GS Capstone, 3 credit hours, On Campus.
Directed Student Learning
Advised: Anna Maria Easley

Scholarship

Intellectual Contributions

Presentations

Service

Professional Memberships
Vice-President, Guild of Natural Science Illustrators - Great Plains Chapter. (January 1, 2010 - Present).
Education Committee Member, Guild of Natural Science Illustrators. (May 1, 2003 - Present).

Academic Advising

2012-2013
Undergraduate Students Advised: 1
Graduate Students Advised: 0

Service – Department
Committee Member, Sustainability Search Committee. (August 28, 2014 - Present).
Committee Member, Enhancement Committee. (January 1, 2011 - Present).

Service – University

Service – Public
Program Organizer, Guild of Natural Science Illustrators - Great Plains Chapter, Lincoln, NE. (May 18, 2013).
Dr. Annette C. Moser
Chemistry
(308) 865-8802
Email: moserac@unk.edu

Academic Degrees
BS, University of Nebraska at Kearney, 2000.
    Major: Chemistry Comprehensive
    Supporting Areas of Emphasis: Physics Minor
    Dissertation Title: Separation of Acetanilide Herbicides and their Metabolites by SPE: Sample Preparation for Chiral Analysis
PhD, University of Nebraska-Lincoln.
    Major: Analytical Chemistry
    Dissertation Title: Development and Use of New Affinity Ligands for Pharmaceutical Analysis

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 14, 2006
Date Attained Rank of Assistant Professor: August 14, 2006
Date Attained Rank of Associate Professor: August 13, 2012
Tenure Decision Date: August 2013

Awards and Honors
Don Fox Chair, UNK Chemistry Department, Teaching, Department. (September 2011).
James W. and Carolyn L. Taylor MUACC Travel Award, Midwest Universities Analytical Chemistry Conference, Scholarship/Research, Regional. (September 2011).
Don Fox Chair, UNK Chemistry Department, Teaching, Department. (September 2010).

Teaching
Scheduled Teaching

Fall 2010
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 23 students enrolled, On Campus.
CHEM 301, Analytical Chemistry, 3 credit hours, 14 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 13 students enrolled, On Campus.

Spring 2011
CHEM 188, GS Portal, 3 credit hours, 4 students enrolled, On Campus.
CHEM 301, Analytical Chemistry, 3 credit hours, 24 students enrolled, On Campus.
CHEM 301H, Analytical Chemistry, 3 credit hours, 1 students enrolled, On Campus.
CHEM 475, Instrumental Analysis, 3 credit hours, 5 students enrolled, On Campus.
CHEM 475H, Instrumental Analysis, 3 credit hours, 1 students enrolled, On Campus.
CHEM 475L, Instrumental Analysis Lab, 1 credit hours, 6 students enrolled, On Campus.

Fall 2011
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 301, Analytical Chemistry, 3 credit hours, 10 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 10 students enrolled, On Campus.
CHEM 469, Senior Seminar in Chemistry, 1 credit hours, 10 students enrolled, On Campus.

Spring 2012
CHEM 301, Analytical Chemistry, 3 credit hours, 21 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 11 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 10 students enrolled, On Campus.

Fall 2012
CHEM 160, General Chem, 3 credit hours, 45 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 475, Instrumental Analysis, 3 credit hours, 7 students enrolled, On Campus.
CHEM 475L, Instrumental Analysis Lab, 1 credit hours, 7 students enrolled, On Campus.

Spring 2013
CHEM 161, General Chem, 3 credit hours, 38 students enrolled, On Campus.
CHEM 301, Analytical Chemistry, 3 credit hours, 25 students enrolled, On Campus.
CHEM 301H, Analytical Chemistry, 3 credit hours, 3 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 16 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 12 students enrolled, On Campus.

Fall 2013
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 21 students enrolled, On Campus.
CHEM 369, Junior Seminar in Chemistry, 1 credit hours, 12 students enrolled, On Campus.
CHEM 864, Analytical Chem for HS Teacher, 3 credit hours, 9 students enrolled, Web Based.

Spring 2014
CHEM 145, Intro Chem, 0 credit hours, 22 students enrolled, On Campus.
CHEM 301, Analytical Chemistry, 3 credit hours, 23 students enrolled, On Campus.
CHEM 301H, Analytical Chemistry, 3 credit hours, 3 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 14 students enrolled, On Campus.
CHEM 301L, Analytical Chemistry Lab, 1 credit hours, 13 students enrolled, On Campus.

Fall 2014
CHEM 160, General Chem, 3 credit hours, On Campus.
CHEM 469, Senior Seminar in Chemistry, 1 credit hours, On Campus.
CHEM 475, Instrumental Analysis, 3 credit hours, On Campus.
CHEM 475L, Instrumental Analysis Lab, 1 credit hours, On Campus.
Directed Student Learning

Supervised Research - UGRD. (February 2013 - Present).
Advised: Alyssa Blair

Supervised Research - UGRD. (February 2013 - Present).
Advised: Anthony Donovan

Supervised Research - UGRD. (January 2011 - May 2013).
Advised: Corey Willicott

Supervised Research - UGRD. (February 2013 - April 2013).
Advised: Ashleigh Teten

Supervised Research - UGRD. (February 2013 - April 2013).
Advised: Lauren Reiman

Supervised Research - UGRD. (February 2013 - April 2013).
Advised: Stephanie Anderson

Thompson Scholars. (February 2013 - April 2013).
Advised: Cole Wellnitz

Thompson Scholars. (January 2012 - May 2012).
Advised: Jamie Kirwan

Supervised Research - UGRD. (February 2011 - May 2012).
Advised: Jessica Baillie

Supervised Research - UGRD. (February 2011 - May 2012).
Advised: Maria Rojas

Supervised Research - UGRD. (February 2009 - May 2012).
Advised: Taylor Carlson

Supervised Research - UGRD. (June 2010 - May 2011).
Advised: Bobbi Arnold

(February 2011 - April 2011).
Advised: Rafaila Ramirez

Chemistry. (January 2010 - May 2010).
Advised: Jared Loschen

Scholarship

Intellectual Contributions


Presentations


Contracts, Fellowships, Grants, and Sponsored Research

Not Funded
Moser, A. C., Grant, Sponsored by NE-INBRE, State, $176,004.00. (May 2014 - April 2017).

Service

Professional Memberships
American Chemical Society. (October 2006 - Present).
Nebraska Academy of Sciences. (March 2005 - Present).

Academic Advising

2013-2014
Undergraduate Students Advised: 4

Service – Department
Committee Member, Outreach. (August 2011 - Present).
GC-MS equipment maintenance. (March 2011 - Present).
HPLC maintenance. (August 2006 - Present).
Committee Chair, Carla Kegley-Owen Annual Review. (January 2014 - March 2015).
Committee Member, Allen Thomas Annual Review. (August 2014 - January 2015).
Committee Member, Hector Palencia - Tenure Review Committee. (October 2014 - November 2014).
General Chemistry I Lab Coordinator. (June 2013 - May 2014).
Faculty Advisor, Transfer student advising. (April 25, 2014).
Committee Member, Science Day at UNK. (March 2014).
Committee Member, Faculty Search. (August 2013 - December 2013).
Committee Member, Distance Education Workstation. (January 2013 - May 2013).
Committee Member, Science Day at UNK. (March 2013).
Committee Member, Faculty Search. (January 2013 - March 2013).
Committee Member, Faculty Search. (August 2012 - February 2013).
General Chemistry I Lab Coordinator. (July 2010 - May 2012).
Seminar Coordinator. (May 2011 - December 2011).

Service – College
Committee Member, Oversight. (August 2012 - Present).
Committee Member, Honors Convocation. (February 2010 - Present).
Committee Chair, Annual Review - Mariana Lazarova. (December 2014 - January 2015).
Committee Member, Jacob Weiss Tenure Committee. (November 2014 - January 2015).
Helped with BHS tours for prospective students, Health Careers Fair Volunteer. (October 8, 2014).
Committee Member, Master’s Thesis - Robert J. Pavlovsky. (August 2011 - May 2014).
Committee Member, Annual Review - Jose Menawerth. (January 2014 - February 2014).
Committee Member, Annual Review - Ken Trantham. (January 2014 - February 2014).
Committee Member, Annual Review - Lee Powell. (January 2014 - February 2014).
Committee Member, Annual Review - Tim Reece. (January 2014 - February 2014).
Committee Member, Annual Review - Laura Wessels. (November 2013 - December 2013).
Helped with BHS tours for prospective students, Health Careers Fair Volunteer. (October 9, 2013).
Committee Member, Master’s Thesis - Pepper May. (August 2011 - May 2013).
Committee Member, Annual Review - Laura Wessels. (January 2013 - February 2013).
Committee Member, Annual Review - Lee Powell. (January 2013 - February 2013).
Committee Member, Annual Review - Tim Reece. (October 2012 - November 2012).
Committee Member, Physics Faculty Search. (October 2011 - March 2012).
Committee Member, Oversight. (August 2008 - July 2011).
Committee Chair, Oversight. (August 2009 - July 2010).

Service – University
Committee Chair, General Studies Assessment Ad-Hoc. (October 2013 - Present).
Committee Member, Keareny Health Opportunities (KHOP) Selection Committee. (December 2012 - Present).
Helped organize and direct chemistry activities for children's 3-day visit, UNK Summer Fun Club for Child Development Center. (July 23, 2014 - July 25, 2014).
Committee Member, Faculty Senate. (April 2013 - April 2014).
Committee Member, Graduate Council Committee II (Academic Affairs). (August 2011 - April 2014).
Committee Member, Graduate Council. (August 2011 - April 2014).
Committee Chair, Faculty Senate Student Affairs. (May 2013 - August 2013).
Committee Member, General Studies Assessment Ad-Hoc. (August 2012 - December 2012).
Faculty Advisor, Preparing Future Faculty Mentor - Wantanee Sittiwong. (August 2012 - November 2012).
Committee Member, Undergraduate Research Council. (August 2009 - May 2012).
Committee Member, Kearney Health Opportunities (KHOP) Selection Committee. (December 2011).

**Service – Professional**

Member, American Chemical Society. (October 2006 - Present).
Member, Nebraska Academy of Sciences. (March 2005 - Present).
Session Chair, American Chemical Society - Midwest Regional Meeting. (2012).
Reviewer, Grant Proposal, North Carolina Biotechnology Center MRG application. (August 2011).
Reviewer, Grant Proposal, NSERC Strategic Project grant application. (August 2010).
Reviewer, Journal Article, Chromatographia. (February 2010).

**Other**

**Faculty Development Activities Attended**

Workshop, "University of Nebraska Graduate College Workshop," University of Nebraska, Omaha, NE. (November 2, 2012).
Professor Christopher L. Exstrom
Chemistry
(308) 865-8565
Email: exstromc@unk.edu

Academic Degrees
PhD, University of Minnesota, 1995.
  Major: Inorganic Chemistry
  Supporting Areas of Emphasis: Analytical Chemistry
  Dissertation Title: Structural Characterization of Iridium 1,8-Diisocyanomethane Complexes and the Effects of Guest Molecule Inclusion on the Structure and Spectroscopy of Organometallic Stacking Complexes
BA, Illinois Wesleyan University, 1990.
  Major: Chemistry

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 19, 1996
Date Attained Rank of Associate Professor: August 14, 2000
Date Attained Rank of Full Professor: August 14, 2006
Tenure Decision Date: August 1, 2000

Academic, Government, Military and Professional Positions

Awards and Honors
Leland Holdt/Security Mutual Life Insurance Company Distinguished Faculty Award, Security Mutual Life Insurance Company, University. (December 15, 2010).

Teaching
Scheduled Teaching

Fall 2010
CHEM 160, General Chem, 3 credit hours, 47 students enrolled, On Campus.
CHEM 369, Junior Seminar In Chemistry, 1 credit hours, 5 students enrolled, On Campus.
CHEM 469, Senior Seminar In Chemistry, 1 credit hours, 7 students enrolled, On Campus.
CHEM 820P, Inorg Chem I-Hs Tchr, 3 credit hours, 10 students enrolled, Web Based.

Spring 2011
CHEM 161, General Chem, 3 credit hours, 44 students enrolled, On Campus.
CHEM 161, General Chem, 3 credit hours, 44 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 21 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 19 students enrolled, On Campus.

Fall 2011
CHEM 160, General Chem, 3 credit hours, 48 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 430, Inorganic Chemistry, 3 credit hours, 7 students enrolled, On Campus.
CHEM 430H, Inorganic Chemistry, 3 credit hours, 4 students enrolled, On Campus.
CHEM 430L, Inorganic Chemistry Lab, 1 credit hours, 11 students enrolled, On Campus.

Spring 2012
CHEM 161L, Gen Chem Lab, 1 credit hours, 17 students enrolled, On Campus.
CHEM 440, Materials Chemistry, 3 credit hours, 4 students enrolled, On Campus.
CHEM 821P, Inorganic Chem II-HS Tchrs, 3 credit hours, 3 students enrolled, Web Based.

Fall 2012
CHEM 160L, Gen Chem Lab, 1 credit hours, 24 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 20 students enrolled, On Campus.
CHEM 269, Sophomore Seminar in Chemistry, 1 credit hours, 24 students enrolled, On Campus.
CHEM 430, Inorganic Chemistry, 3 credit hours, 6 students enrolled, On Campus.
CHEM 430L, Inorganic Chemistry Lab, 1 credit hours, 6 students enrolled, On Campus.

Spring 2013
CHEM 161L, Gen Chem Lab, 1 credit hours, 16 students enrolled, On Campus.
CHEM 300, Environmental Chemistry, 3 credit hours, 9 students enrolled, On Campus.
CHEM 820P, Inorganic Chem I-HS Tchr, 3 credit hours, 8 students enrolled, Web Based.

Fall 2013
CHEM 160, General Chem, 3 credit hours, 36 students enrolled, On Campus.
CHEM 430, Inorganic Chemistry, 3 credit hours, 7 students enrolled, On Campus.
CHEM 430L, Inorganic Chemistry Lab, 1 credit hours, 7 students enrolled, On Campus.
CHEM 469, Senior Seminar in Chemistry, 1 credit hours, 5 students enrolled, On Campus.

Spring 2014
CHEM 161L, Gen Chem Lab, 1 credit hours, 15 students enrolled, On Campus.
CHEM 440, Materials Chemistry, 3 credit hours, 4 students enrolled, On Campus.
CHEM 821, Inorganic Chem II-HS Tchrs, 3 credit hours, 8 students enrolled, Web Based.

Summer 2014
CHEM 810, Environmental Chem - HS Tchr, 3 credit hours, 9 students enrolled, Web Based.

Fall 2014
CHEM 145, Intro Chem, 4 credit hours, On Campus.
CHEM 145, Intro Chem, 0 credit hours, On Campus.
CHEM 145, Intro Chem, 0 credit hours, On Campus.
CHEM 145, Intro Chem, 0 credit hours, On Campus.
Directed Student Learning

Supervised Research - UGRD. (January 2014 - Present).
Advised: Jessica Blum

Supervised Research - UGRD. (January 2014 - Present).
Advised: Miranda Neumann

Advised: Aspen Clements

Advised: Michael Hanrahan

Advised: Rebecca Svatora

Advised: Bethany Lueck

Advised: Joshua Edgar

Advised: Mallory Breemes

Advised: Mariana Bartlotti Garcia

Advised: Shane Swanson

Advised: Zack Colgrove

Advised: Bjorn Lund

Advised: Thomas Webber

Advised: Daniel Connor

Advised: Molly O'Brien

Advised: Ryan Matzen

Advised: Xiaojun Liu

Advised: Kirsten Lipps
Advised: Nathan Hoffman

Supervised Research - UGRD, "CuInS2 Preparation via Aqueous Solution-based Methods; Preparation and Studies of Nanocrystalline FeS2 and SnS2." (January 2009 - May 2012).
Advised: Matthew Jensen

Advised: Jesse Lange

Supervised Research - UGRD. (January 2008 - December 2011).
Advised: Laura Slaymaker

Advised: David Paprocki

Advised: Megan Schliefert

Advised: Matthew Ingersoll

Advised: Loany Fajardo

Supervised Research - UGRD, "CuInSe2 Preparation via Se reduction by KBH4." (May 2010 - August 2010).
Advised: Britni Hervert

Advised: Maurice Chessmore

Supervised Research - UGRD. (January 2006 - May 2010).
Advised: Ashley Vandeventer

Scholarship

Intellectual Contributions


**Patents**


**Presentations**


Contracts, Fellowships, Grants, and Sponsored Research

Funded

Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), "Acquisition of a benchtop x-ray diffractometer to enhance materials science research across the physical and earth sciences at UNK," Grant, Sponsored by Nebraska Research Initiative, State, $64,000.00. (May 2013 - Present).

Palencia, H. (Co-Principal), Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), Carlson, K. A. (Co-Principal), Reece, T. J. (Co-Principal), Kreminska, L. (Co-Principal), "Nanoscale materials imaging at the benchtop: Enhancing materials science research and education across the physical and life sciences using a new low-voltage electron microscope technology," Grant, Sponsored by University of Nebraska – Nebraska Research Initiative (NRI), University of Nebraska at Kearney, $286,610.00. (June 10, 2011 - Present).

Palencia, H. (Co-Principal), Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), Carlson, K. A. (Co-Principal), Reece, T. J. (Co-Principal), Kreminska, L. (Co-Principal), "Nanoscale materials imaging at the benchtop: Enhancing materials science research and education across the physical and life sciences using a new low-voltage electron microscope technology," Grant, Sponsored by University of Nebraska – Nebraska Research Initiative (NRI), University of Nebraska at Kearney, $286,610.00. (June 10, 2011 - Present).


Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), "Development of High-Efficiency, Low-Cost Thin Film Solar Cells Based on Naturally Abundant and Non-Toxic Materials," Grant, Sponsored by University of Nebraska-Lincoln (Nebraska Research Initiative), $29,112.00. (July 2012 - June 2014).
Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), Carlson, K. A. (Co-Principal), Reece, T. J. (Co-Principal), Kreminska, L. (Co-Principal), "Nanoscale Imaging at the Benchtop: Enhancing Materials Science Research and Education across the Physical and Life Sciences using New Low-Voltage Electron Microscope Technology," Grant, Sponsored by Nebraska Research Initiative, State, $286,610.00. (July 2011 - June 2012).


Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), "Low-cost, Non-vacuum Nanomanufacturing of the Absorber Layer of High-efficiency Solar Cells," Grant, Sponsored by University of Nebraska-Lincoln (Nebraska Center for Energy Sciences Research), State, $20,600.00. (July 2010 - June 2011).

Exstrom, C. (Co-Principal), Darveau, S. A. (Principal), "New Science and Engineering of Carbon-Based Low-Dimensional Nanoelectronics," Grant, Sponsored by University of Nebraska-Lincoln (Nebraska Research Initiative), State, $50,000.00. (July 2009 - June 2011).

Exstrom, C. (Principal), Darveau, S. A. (Co-Principal), "A New Wide Bandgap Material for Semiconductor Solar Cell Materials," Grant, Sponsored by University of Nebraska-Lincoln (Nebraska Research Initiative), State, $132,000.00. (July 2006 - June 2010).

Service

Administrative Assignments

Director, Program. (May 1, 2012 - Present).

Professional Memberships

Institute of Electrical and Electronics Engineers. (June 1, 2009 - Present).
American Chemical Society. (March 1, 1994 - Present).
Sigma Xi. (April 15, 1990 - Present).


Service – Department

Caretaker, Department Bruker D2 Phaser XRD Maintenance. (2013 - Present).
Committee Member, Assessment Committee. (August 2012 - Present).
Caretaker, Department Electrochemistry Equipment Maintenance. (2009 - Present).
Creator and Coordinator, Chemistry Research Apprentice Program Coordinator. (January 2006 - Present).
Caretaker, Department FTIR Spectrometer Maintenance. (1996 - Present).

Service – College

Committee Member, NSS Rank and Tenure Committee. (August 2013 - Present).
Committee Chair, Science/Math Education M.S.Ed. Graduate Program Committee. (April 2012 - Present).
Committee Chair, NSS Advisory Committee. (August 2009 - July 2012).
Committee Member, Science/Math Education M.S.Ed. Graduate Program Committee. (August 2011 - April 2012).

Service – University

Committee Member, Graduate Committee I. (September 2014 - Present).
Committee Member, Graduate Council. (May 2014 - Present).
Committee Member, UNK Undergraduate Research Council. (April 2012 - Present).
Committee Member, University of Nebraska system Outstanding Research and Creativity Award Committee. (October 2012 - March 2015).
Committee Member, UNK Leland Holdt/Security Mutual Life Insurance Company Distinguished Faculty Award Selection Committee. (October 2011 - December 2013).
Committee Chair, Faculty Senate Academic Freedom & Tenure Committee. (October 2011 - September 2013).
Committee Member, Director of Sponsored Programs Search Committee. (October 2012 - May 2013).
Committee Member, Faculty Senate Grievance Committee. (October 2009 - September 2011).
Committee Member, UNK Academic Success Center Advisory Board. (September 2009 - May 2011).
Committee Member, University of Nebraska system Innovation, Enhancement, and Development Award Selection Award Committee. (October 2009 - March 2010).

Service – Professional
Reviewer, Ad Hoc Reviewer, Acharya Nagarjuna University, Nagarjuna Nagar, Guntar Dist. (December 2014).
Reviewer, Ad Hoc Reviewer, University of Jordan. (April 2014).
Reviewer, Grant Proposal, Poland National Science Centre. (March 2014).
Reviewer, Journal Article, Crystal Growth and Design. (February 2014).
Reviewer, Ad Hoc Reviewer, NASA. (January 2014).
Committee Member, UNK Sigma Xi Chapter, Kearney, NE. (August 2008 - July 2012).
Academic Degrees
PhD, University of Colorado, Boulder, 1998.
  Major: Physical Chemistry
BS, Kearney State College, 1990.
  Major: Chemistry and Mathematics

Administrative Data – Permanent
Starting Rank: Lecturer
Start Date at University of Nebraska at Kearney: September 1, 2001
Date Attained Rank of Lecturer: August 20, 2001
Date Attained Rank of Senior Lecturer: August 20, 2007

Teaching
Scheduled Teaching

Fall 2010
CHEM 145, Intro Chem, 4 credit hours, 74 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 25 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 24 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 25 students enrolled, On Campus.
CHEM 188, GS Portal, 3 credit hours, 18 students enrolled, On Campus.

Spring 2011
CHEM 145, Intro Chem, 4 credit hours, 74 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 26 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 24 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 24 students enrolled, On Campus.
CHEM 161, General Chem, 3 credit hours, 47 students enrolled, On Campus.

Summer 2011
CHEM 145, Intro Chem, 4 credit hours, 16 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 16 students enrolled, On Campus.

Fall 2011
CHEM 160L, Gen Chem Lab, 1 credit hours, 23 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 23 students enrolled, On Campus.
CHEM 188, GS Portal, 3 credit hours, 20 students enrolled, On Campus.
CHEM 480, Physical Chem, 3 credit hours, 9 students enrolled, On Campus.
CHEM 480H, Physical Chem, 3 credit hours, 1 students enrolled, On Campus.
CHEM 480L, Physical Chemistry Lab, 1 credit hours, 10 students enrolled, On Campus.
Spring 2012
CHEM 161, General Chem, 3 credit hours, 43 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 21 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 20 students enrolled, On Campus.
CHEM 481, Physical Chemistry II, 3 credit hours, 4 students enrolled, On Campus.
CHEM 481L, Physical Chemistry II Lab, 1 credit hours, 5 students enrolled, On Campus.

Summer 2012
CHEM 145, Intro Chem, 4 credit hours, 17 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 17 students enrolled, On Campus.

Fall 2012
CHEM 160, General Chem, 3 credit hours, 48 students enrolled, On Campus.
CHEM 188, GS Portal, 3 credit hours, 18 students enrolled, On Campus.
CHEM 369, Junior Seminar in Chemistry, 1 credit hours, 9 students enrolled, On Campus.
CHEM 480, Physical Chem, 3 credit hours, 9 students enrolled, On Campus.
CHEM 480H, Physical Chem, 3 credit hours, 1 students enrolled, On Campus.
CHEM 480L, Physical Chemistry Lab, 1 credit hours, 10 students enrolled, On Campus.

Spring 2013
CHEM 161L, Gen Chem Lab, 1 credit hours, 17 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 12 students enrolled, On Campus.
CHEM 388, GS Capstone, 3 credit hours, 8 students enrolled, On Campus.
CHEM 388H, GS Capstone, 3 credit hours, 1 students enrolled, On Campus.
CHEM 388L, GS Capstone Lab, 1 credit hours, 8 students enrolled, On Campus.
CHEM 481, Physical Chemistry II, 3 credit hours, 2 students enrolled, On Campus.
CHEM 481L, Physical Chemistry II Lab, 1 credit hours, 2 students enrolled, On Campus.

Summer 2013
CHEM 161, General Chem, 3 credit hours, 25 students enrolled, On Campus.

Fall 2013
CHEM 145, Intro Chem, 4 credit hours, 88 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 22 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 22 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 22 students enrolled, On Campus.
CHEM 188, GS Portal, 3 credit hours, 20 students enrolled, On Campus.

Spring 2014
CHEM 161, General Chem, 3 credit hours, 43 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 15 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 23 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 388, GS Capstone, 3 credit hours, 9 students enrolled, On Campus.

Summer 2014
CHEM 161, General Chem, 3 credit hours, 24 students enrolled, On Campus.

Fall 2014
CHEM 160, General Chem, 3 credit hours, On Campus.
CHEM 160, General Chem, 3 credit hours, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, On Campus.

Service
Service – College
Committee Chair, Ed Policy. (September 2012 - Present).
Committee Member, Ed Policy. (September 2010 - August 2012).
Committee Chair, Ed Policy. (September 2009 - August 2010).

Service – Public
Officer, President/Elect/Past, Buffalo County 4-H Council, Kearney, NE. (September 2012 - Present).
Officer, Treasurer, Haven's Chapel Ball, Kearney, NE. (April 2012 - Present).
Frank A. Kovacs
Chemistry
(308) 865-8384
Email: kovacsfa@unk.edu

Academic Degrees
PhD, Florida State University, 1999.
   Major: Molecular Biophysics
   Dissertation Title: Structural Characterization of the M2 Protein Ion Channel of the Influenza A virus using Solid State NMR Spectroscopy
BS, University of West Florida, 1988.
   Major: Biology

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 19, 2002
Date Attained Rank of Assistant Professor: August 19, 2002
Date Attained Rank of Associate Professor: August 18, 2008
Tenure Decision Date: August 18, 2008

Academic, Government, Military and Professional Positions
Postdoctoral Researcher, University of Massachusetts, Academic - Post-Secondary. (June 15, 1999 - August 1, 2002).

Teaching
Scheduled Teaching

Fall 2010
CHEM 160, General Chem, 3 credit hours, 47 students enrolled, On Campus.
CHEM 351, Biochemistry, 3 credit hours, 28 students enrolled, On Campus.
CHEM 351H, Biochemistry, 3 credit hours, 6 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 18 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 15 students enrolled, On Campus.

Spring 2011
CHEM 351, Biochemistry, 3 credit hours, 17 students enrolled, On Campus.
CHEM 351H, Biochemistry, 3 credit hours, 1 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 16 students enrolled, On Campus.
CHEM 352, Biochemistry II, 3 credit hours, 6 students enrolled, On Campus.
CHEM 352H, Biochemistry II, 3 credit hours, 3 students enrolled, On Campus.
CHEM 352L, Biochemistry II Lab, 1 credit hours, 8 students enrolled, On Campus.

Fall 2011
CHEM 351, Biochemistry, 3 credit hours, 34 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 17 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 16 students enrolled, On Campus.
CHEM 451, Adv Biochemistry, 3 credit hours, 3 students enrolled, On Campus.

**Spring 2012**
CHEM 351, Biochemistry, 3 credit hours, 26 students enrolled, On Campus.
CHEM 351H, Biochemistry, 3 credit hours, 1 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 18 students enrolled, On Campus.
CHEM 352, Biochemistry II, 3 credit hours, 10 students enrolled, On Campus.
CHEM 352L, Biochemistry II Lab, 1 credit hours, 9 students enrolled, On Campus.

**Summer 2012**
CHEM 855, Biochem for HS Teachers, 3 credit hours, 6 students enrolled, Web Based.

**Spring 2013**
CHEM 160, General Chem, 3 credit hours, 46 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 11 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 18 students enrolled, On Campus.
CHEM 161, General Chem, 3 credit hours, 27 students enrolled, On Campus.
CHEM 451, Adv Biochemistry, 3 credit hours, 1 students enrolled, On Campus.

**Summer 2013**
CHEM 855, Biochem for HS Teachers, 3 credit hours, 16 students enrolled, Web Based.

**Fall 2013**
CHEM 160, General Chem, 3 credit hours, 48 students enrolled, On Campus.
CHEM 160, General Chem, 3 credit hours, 48 students enrolled, On Campus.
CHEM 451, Adv Biochemistry, 3 credit hours, 7 students enrolled, On Campus.

**Spring 2014**
CHEM 145, Intro Chem, 0 credit hours, 22 students enrolled, On Campus.
CHEM 145, Intro Chem, 0 credit hours, 21 students enrolled, On Campus.
CHEM 351, Biochemistry, 3 credit hours, 21 students enrolled, On Campus.
CHEM 351H, Biochemistry, 3 credit hours, 1 students enrolled, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, 17 students enrolled, On Campus.

**Summer 2014**
CHEM 855, Biochem for HS Teachers, 3 credit hours, 8 students enrolled, Web Based.

**Fall 2014**
CHEM 160L, Gen Chem Lab, 1 credit hours, On Campus.
CHEM 351, Biochemistry, 3 credit hours, On Campus.
CHEM 351H, Biochemistry, 3 credit hours, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, On Campus.
CHEM 351L, Biochemistry Lab, 1 credit hours, On Campus.

Scholarship

Intellectual Contributions


Presentations


Bjorklund, T. E. (Author & Presenter), Kovacs, F. A. (Faculty Mentor), Glass, A. M. (Faculty Mentor). Fall Student Research Symposium, "Generating and Characterizing the Nickel-Binding Domain of a Metallochaperone known as SlyD," UNK. (October 30, 2014).


Contracts, Fellowships, Grants, and Sponsored Research

Kovacs, F. A. (Principal), "Crystallization and Structure Determination of Ascorbate Peroxidase From Switchgrass," Grant, Sponsored by UNK Research Services Council, University of Nebraska at Kearney, $3,000.00. (June 2012 - September 2012).
Service

Professional Memberships
American Chemical Society. (January 1, 2002 - Present).

Service – Department
Committee Chair, Scholarship Committee. (January 2007 - Present).
Committee Member, Faculty Search Committee. (September 2012 - February 2013).
Committee Member, Faculty Search Committee. (September 2011 - February 2012).

Service – College
Committee Chair, Rank and Tenure. (September 2012 - May 2013).
Committee Member, CNSS Rank and Tenure. (September 2010 - May 2012).

Service – University
Committee Member, Research Services Council. (September 1, 2013 - Present).
Faculty Advisor, UNK College Republicans. (January 2009 - Present).
Dr. Haishi Cao
Chemistry
(308) 865-8105
Email: caoh1@unk.edu

Academic Degrees
  Major: Bioorganic
PhD, New Mexico Institute of Mining & Technology, 2004.
  Major: Organic Chemistry
MS, Jilin University, 1999.
  Major: Biochemistry
BS, Jilin University, 1995.
  Major: Biochemistry

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 20, 2007
Date Attained Rank of Assistant Professor: August 20, 2007
Date Attained Rank of Associate Professor: August 13, 2012
Tenure Decision Date: August 13, 2013

Awards and Honors
Don Fox Chair of Chemistry Department, UNK, Scholarship/Research, Department. (October 2012).
faculty mentor award, UNK, Scholarship/Research, College. (May 2012).

Teaching
Scheduled Teaching

Fall 2010
CHEM 160, General Chem, 3 credit hours, 47 students enrolled, On Campus.
CHEM 160, General Chem, 3 credit hours, 47 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 24 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 24 students enrolled, On Campus.

Spring 2011
CHEM 150, Intro To Organic & Biochem, 4 credit hours, 24 students enrolled, On Campus.
CHEM 150, Intro To Organic & Biochem, 0 credit hours, 24 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 21 students enrolled, On Campus.
CHEM 161L, Gen Chem Lab, 1 credit hours, 20 students enrolled, On Campus.

Fall 2011
CHEM 160, General Chem, 3 credit hours, 46 students enrolled, On Campus.
CHEM 160, General Chem, 3 credit hours, 47 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 269, Sophomore Seminar in Chemistry, 1 credit hours, 31 students enrolled, On Campus.
Spring 2012
CHEM 160, General Chem, 3 credit hours, 48 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 22 students enrolled, On Campus.
CHEM 160L, Gen Chem Lab, 1 credit hours, 18 students enrolled, On Campus.
CHEM 461, Qualitative Organic Analysis, 3 credit hours, 4 students enrolled, On Campus.
CHEM 461L, Qual Organic Analysis Lab, 1 credit hours, On Campus.

Fall 2012
CHEM 160L, Gen Chem Lab, 1 credit hours, 21 students enrolled, On Campus.
CHEM 360, Organic Chemistry, 4 credit hours, 42 students enrolled, On Campus.
CHEM 360H, Organic Chemistry, 4 credit hours, 5 students enrolled, On Campus.
CHEM 360L, Organic Chem Lab, 1 credit hours, 23 students enrolled, On Campus.
CHEM 360L, Organic Chem Lab, 1 credit hours, 14 students enrolled, On Campus.

Spring 2013
CHEM 161L, Gen Chem Lab, 1 credit hours, 16 students enrolled, On Campus.
CHEM 361, Organic Chemistry, 4 credit hours, 28 students enrolled, On Campus.
CHEM 361L, Organic Chem Lab, 1 credit hours, 21 students enrolled, On Campus.
CHEM 361L, Organic Chem Lab, 1 credit hours, 22 students enrolled, On Campus.

Fall 2013
CHEM 160L, Gen Chem Lab, 1 credit hours, 23 students enrolled, On Campus.
CHEM 360, Organic Chemistry, 4 credit hours, 42 students enrolled, On Campus.
CHEM 360L, Organic Chem Lab, 1 credit hours, 19 students enrolled, On Campus.
CHEM 360L, Organic Chem Lab, 1 credit hours, 12 students enrolled, On Campus.

Spring 2014
CHEM 361, Organic Chemistry, 4 credit hours, 25 students enrolled, On Campus.
CHEM 361L, Organic Chem Lab, 1 credit hours, 19 students enrolled, On Campus.
CHEM 461, Qualitative Organic Analysis, 3 credit hours, 3 students enrolled, On Campus.

Fall 2014
CHEM 160L, Gen Chem Lab, 1 credit hours, On Campus.
CHEM 360, Organic Chemistry, 4 credit hours, On Campus.
CHEM 360L, Organic Chem Lab, 1 credit hours, On Campus.
CHEM 360L, Organic Chem Lab, 1 credit hours, On Campus.

Directed Student Learning
Master’s Thesis Committee Member, Biology. (December 2012 - Present).
Advised: Li Wang
Scholarship

Intellectual Contributions


Presentations


Cao, H., "Fluorescence sensing for molecules in biological system," Jilin University. (June 28, 2013).

Yang, L. (Author & Presenter), Wang, M. (Author), Cao, H. UNK student research day, "Detecting CN⁻ in biosample by using ICT fluorescence chemosensor," UNK, Kearney, NE. (April 2013).

Wang, J. (Author & Presenter), Bamesberger, A. (Author), Song, Q. (Author), Yang, L. (Author), Cao, H. (Author). UNK student research day, "Understanding the internal charge transfer (ICT) effect in N-aryl-1,8-naphthalimide," UNK, Kearney. (April 2013).

Wang, J. (Author & Presenter), Cao, H. (Author). Nebraska academy of sciences annual meeting, "Investigation of substitution effect from phenyl ring to internal charge transfer in N-aryl-1,8-naphthalimides," Nebraska academy of sciences, Lincoln, NE. (April 19, 2013).

Bamesberger, A. (Author & Presenter), Song, Q. (Author), Cao, H. (Author). 47th ACS Middle West Regional Meeting, "Investigation of substituent effect on photophysical properties of 4-amino-Naryl-1,8-naphthalimides," American Chemical Society, Omaha, NE. (October 24, 2012).

Yang, L. (Author & Presenter), Cao, H. (Author). 47th ACS Middle West Regional Meeting, "PET based chemosensor with fluorescence turn-on for detection of Cu²⁺," American Chemical Society, Omaha, NE. (October 24, 2012).

Yang, L. (Author & Presenter), Cao, H. (Author). UNK student research day, "Fluorescence sensor based on anthracene for cu²⁺ analysis," UNK, Kearney. (September 30, 2012).


Yang, L. (Author & Presenter), Cao, H. (Author). UNK student research day, "Developing C=N recognition unit on 1,8-naphthalimide for metal ions detection," UNK, Kearney. (April 2012).

Wang, J. (Author & Presenter), Cao, H. (Author), Yang, L. (Author). UNK student research day, "Develop a new Hg2+ sensor based on nanomaterials," UNK, Kearney. (October 2011).

Wang, J. (Author & Presenter), Cao, H. (Author). UNK student research day, "Developing a novel fluorescent sensor based on 1,8-naphthalimide for fluoride detection," UNK, Kearney. (October 2011).

Wang, J. (Author & Presenter), Cao, H. (Author), Yang, L. (Author). Nebraska Research and Innovation Conference, "Develop a new Hg2+ sensor based on nanomaterials," Nebraska EPSCoR, Omaha. (September 2011).


**Contracts, Fellowships, Grants, and Sponsored Research**

**Funded**


Cao, H. (Principal), "Development of new reagent to enrich protein sample for proteomics," Grant, Sponsored by UNK, University of Nebraska at Kearney, $5,000.00. (May 1, 2012 - May 1, 2013).

**Service**

**Professional Memberships**

Sigma Xi. (June 1, 2009 - Present).

American Chemical Society. (September 1999 - Present).

**Academic Advising**

Master’s Thesis Committee Member, Biology. (December 2012 - Present).

Advised: Li Wang

2013-2014

Undergraduate Students Advised: 3

Graduate Students Advised: 1

**Service – Department**

Committee Member, Safety committee. (July 2011 - Present).

Committee Chair, NMR maintenance committee. (June 2011 - Present).

Fluorimeter Maintenance. (May 1, 2011 - Present).

Committee Member, Science Day. (November 24, 2014).

Faculty Advisor, Mentoring junior faculty. (August 2012 - May 2014).

Committee Member, Palmer high school visitation. (March 31, 2014).

Committee Member, Science Day. (March 5, 2014).

Committee Member, New faculty search committee. (September 30, 2013 - March 1, 2014).

Committee Member, Promotion committee. (November 1, 2013 - December 1, 2013).

Committee Member, Science Day. (November 25, 2013).
Committee Chair, CHEM 161 lab Coordinator. (January 2013 - April 2013).
Committee Member, Host Elwood High School visitation. (April 2, 2013).
Committee Member, Host Chemistry Day. (March 15, 2013).
Committee Member, New faculty search committee. (September 1, 2012 - March 1, 2013).
Faculty Advisor, Advising Chemistry Club. (September 1, 2007 - August 1, 2012).
Committee Member, New faculty search committee. (September 1, 2011 - March 1, 2012).
Committee Member, Host Ansley High School visitation. (March 11, 2011).
Committee Member, New faculty search committee. (September 1, 2010 - March 1, 2011).
Committee Member, Host Kearney High School visitation. (December 2, 2010).
Committee Member, Host Gibbon High School visitation. (September 22, 2010).
Committee Member, New faculty search committee. (September 1, 2009 - March 1, 2010).

Service – College
Committee Member, Dean advisory committee. (July 2012 - July 2015).
Nebraska state fair. (August 2011 - August 2012).

Service – University
Committee Member, Academic Freedom and Tenure Committee. (September 2013 - September 2015).
Committee Member, Be judge in Homecoming Week. (October 2009 - October 2010).

Service – Professional
American Chemical Society Nebraska section. (January 2011 - Present).
Officer, Secretary, American Chemical Society Nebraska section. (2010 - 2011).

Service – Public
Board Member, Being Judge of Nebraska Junior Academy of Science, Kearney, NE. (March 9, 2012).
Board Member, Being Judge of Central Nebraska Science & Engineering Fair, Franklin, NE. (February 25, 2012).
Board Member, Being Judge of Central Nebraska Science & Engineering Fair, Franklin, NE. (February 26, 2011).
Committee Member, Being Judge of Nebraska Junior Academy of Science Central Regional Science Fair, Kearney, NE. (March 23, 2010).
Board Member, Being Judge of Central Nebraska Science & Engineering Fair, Franklin, NE. (February 28, 2010).
Dr. Paul Twigg
Biology
(308) 865-8315
Email: twiggp@unk.edu

Academic Degrees
PhD, The University of Tennessee, 1993.
  Major: Botany
  Supporting Areas of Emphasis: Biochemistry
  Dissertation Title: Isolation of a nodule-specific cDNA encoding a putative glycine-rich protein from Alnus glutinosa
  Major: Biology
  Supporting Areas of Emphasis: Chemistry

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 17, 1992
Date Attained Rank of Associate Professor: August 17, 1998
Date Attained Rank of Full Professor: August 14, 2006
Tenure Decision Date: August 1, 1998

Teaching
Scheduled Teaching

Fall 2010
BIOL 309, Cellular Biol, 4 credit hours, 31 students enrolled, On Campus.
BIOL 309, Cellular Biol, 0 credit hours, 15 students enrolled, On Campus.
BIOL 309, Cellular Biol, 0 credit hours, 16 students enrolled, On Campus.
BIOL 309H, Cellular Biol, 4 credit hours, 2 students enrolled, On Campus.
BIOL 309H, Cellular Biol, 0 credit hours, 1 students enrolled, On Campus.
BIOL 309H, Cellular Biol, 0 credit hours, 1 students enrolled, On Campus.
BIOL 830P, Spec Topics in Biology, 3 credit hours, 27 students enrolled, Web Based.

Spring 2011
BIOL 309, Cellular Biol, 4 credit hours, 18 students enrolled, On Campus.
BIOL 309, Cellular Biol, 0 credit hours, 13 students enrolled, On Campus.
BIOL 309, Cellular Biol, 0 credit hours, 5 students enrolled, On Campus.
BIOL 830P, Spec Topics in Biology, 3 credit hours, 25 students enrolled, Web Based.
BIOL 844, Molecular Biotechnology, 3 credit hours, 25 students enrolled, Web Based.

Summer 2011
BIOL 430H, Special Topics in Biology, 3 credit hours, 1 students enrolled, On Campus.
BIOL 830P, Special Topics in Biology, 3 credit hours, 27 students enrolled, Web Based.
Fall 2011
BIOL 309, Cellular Biology, 4 credit hours, 31 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 12 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 19 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, 11 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 9 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 2 students enrolled, On Campus.
BIOL 388, GS Capstone, 3 credit hours, 1 students enrolled, On Campus.
BIOL 388L, GS Capstone Lab, 1 credit hours, 1 students enrolled, On Campus.
BIOL 430, Special Topics in Biology, 3 credit hours, 1 students enrolled, On Campus.
BIOL 430H, Special Topics in Biology, 3 credit hours, 3 students enrolled, On Campus.
BIOL 830P, Special Topics in Biology, 3 credit hours, 25 students enrolled, Web Based.

Spring 2012
BIOL 309, Cellular Biology, 4 credit hours, 21 students enrolled, On Campus.
BIOL 309, Cellular Biology, 0 credit hours, 21 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, 1 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 0 credit hours, 1 students enrolled, On Campus.
BIOL 430, Special Topics in Biology, 3 credit hours, 1 students enrolled, Web Based.
BIOL 814, Plant Pathology, 3 credit hours, 22 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 3 credit hours, 6 students enrolled, Web Based.

Summer 2012
BIOL 830P, Special Topics in Biology, 3 credit hours, 28 students enrolled, Web Based.

Fall 2012
BIOL 309, Cellular Biology, 4 credit hours, 37 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, 6 students enrolled, On Campus.
BIOL 430, Special Topics in Biology, 3 credit hours, 2 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 3 credit hours, 23 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 3 credit hours, 12 students enrolled, Web Based.

Spring 2013
BIOL 309, Cellular Biology, 4 credit hours, 14 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, 2 students enrolled, On Campus.
BIOL 417, Mycology, 3 credit hours, 3 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 3 credit hours, 7 students enrolled, Web Based.
BIOL 844, Molecular Biotechnology, 3 credit hours, 24 students enrolled, Web Based.

Summer 2013
BIOL 845, Forensic Biology, 3 credit hours, 27 students enrolled, Web Based.

Fall 2013
BIOL 309, Cellular Biology, 4 credit hours, 33 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, 12 students enrolled, On Campus.
BIOL 830P, Special Topics in Biology, 3 credit hours, 25 students enrolled, Web Based.
BIOL 846, Cancer Biology, 3 credit hours, 24 students enrolled, Web Based.

Spring 2014
BIOL 309, Cellular Biology, 4 credit hours, 15 students enrolled, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, 2 students enrolled, On Campus.
BIOL 814, Plant Pathology, 3 credit hours, 16 students enrolled, Web Based.
BIOL 830P, Special Topics in Biology, 3 credit hours, 21 students enrolled, Web Based.

Summer 2014
BIOL 845, Forensic Biology, 3 credit hours, 21 students enrolled, Web Based.

Fall 2014
BIOL 309, Cellular Biology, 4 credit hours, On Campus.
BIOL 309H, Cellular Biology, 4 credit hours, On Campus.
BIOL 430, Special Topics in Biology, 3 credit hours, On Campus.
BIOL 830P, Special Topics in Biology, 3 credit hours, Web Based.
BIOL 846, Cancer Biology, 3 credit hours, Web Based.

Directed Student Learning
Experiential Learning, Biology. (August 2013 - Present).
Advised: Sydney Peak
Master’s Thesis Committee Chair, Biology. (August 2013 - Present).
Advised: Corey Willicott
Advised: Asa Russell
Advised: Jacob Fritton
Advised: MaryAnn Pelc
Advised: Rachel Schnoor
Master’s Thesis Committee Chair, Biology. (August 2012 - Present).
Advised: Li Wang
Advised: Brandon Karlin
Experiential Learning, Biology. (September 2010 - Present).
Advised: Kelsie Musil
Dissertation Committee Member. (August 2009 - Present).
Advised: Crystal Ramm
Dissertation Committee Member. (August 2009 - Present).
Advised: Travis Prochaska
Advised: Polly Davis
Advised: Marguerite Gallegos
Master's Thesis Committee Chair, "Chlorophyll degradation and transcription factor up-regulation regulation upon nitrogen deprivation in Chlamydomonas reinhardtii," Biology. (August 2012 - May 2013).
Advised: Pepper May
Experiential Learning, Biology. (January 2012 - May 2013).
Advised: Kara Brungardt
Advised: Kelsie Musil
Master's Thesis Committee Chair, "Transcriptomic and transcription factor changes in buffalograss when exposed to drought," Biology. (August 2009 - December 2012).
Advised: Steven Vitosh
Master's Thesis Committee Chair, "Effect of nitrogen deprivation on transcription factor expression and lipid accumulation in Chlamydomonas reinhardtii," Biology. (August 2010 - May 2012).
Advised: Annastasia Barber
Advised: Meagan Doyle
Dissertation Committee Member. (August 2006 - December 2011).
Advised: Teresa Donze
Advised: Martha Montanez

**Supervision of Students**
Internship, BIOL 475. Fall 2011. 1 supervised.
Internship, BIOL 475. Fall 2011. 1 supervised.

**Scholarship**

**Intellectual Contributions**


Presentations


**Service**

**Professional Memberships**

**Academic Advising**
Master's Thesis Committee Chair, Biology. (August 2013 - Present).
Advised: Corey Willicott

Master's Thesis Committee Chair, Biology. (August 2012 - Present).
Advised: Li Wang

Master's Thesis Committee Chair, "Chlorophyll degradation and transcription factor up-regulation regulation upon nitrogen deprivation in Chlamydomonas reinhardtii," Biology. (August 2012 - May 2013).
Advised: Pepper May

Master's Thesis Committee Chair, "Transcriptomic and transcription factor changes in buffalograss when exposed to drought," Biology. (August 2009 - December 2012).
Advised: Steven Vitos

Master's Thesis Committee Chair, "Effect of nitrogen deprivation on transcription factor expression and lipid accumulation in Chlamydomonas reinhardtii," Biology. (August 2010 - May 2012).
Advised: Annastasia Barber

Advised: Martha Montanez

2011-2012
Undergraduate Students Advised: 50
Graduate Students Advised: 17

2012-2013
Undergraduate Students Advised: 65
Graduate Students Advised: 10

2013-2014
Undergraduate Students Advised: 60
Graduate Students Advised: 15

**Service – Department**
Committee Chair, Faculty search committee. (August 2013 - Present).
Committee Member, Lab Fees. (June 2013 - Present).
Committee Chair, Nepotism. (June 2013 - Present).
Committee Chair, Peer Review. (June 2013 - Present).
Committee Member, Undergraduate Research. (August 2012 - Present).
Committee Member, Greenhouse and collections. (August 1992 - Present).

**Service – University**
Committee Member, Faculty Senate Student Affairs. (August 2013 - Present).
Committee Member, Search Committee-OSP. (January 2013 - Present).
Committee Chair, Radiation Safety Officer. (January 1998 - Present).
Committee Member, Faculty Senate Grievance. (January 2012 - August 2013).
Dr. Amy L. Nebesniak  
Mathematics  
(308) 865-8643  
Email: NEBESNIAKA2@UNK.EDU

**Academic Degrees**

EdD, University of Nebraska - Lincoln, 2012.  
- Major: Teaching, Learning, and Teacher Education  
- Supporting Areas of Emphasis: Mathematics Education  
- Dissertation Title: Learning to Teach Mathematics with Reasoning and Sense Making

MA, University of Nebraska - Lincoln, 2007.  
- Major: Teaching, Learning, Teacher Education  
- Supporting Areas of Emphasis: Mathematics Minor  
- Dissertation Title: Using Cooperative Learning to Promote a Problem-Solving Classroom

BS, University of Nebraska - Kearney, 2002.  
- Major: Middle School Education  
- Supporting Areas of Emphasis: Subject Areas: Mathematics, Natural Sciences, and Social Sciences

**Administrative Data – Permanent**

Starting Rank: Assistant Professor  
Start Date at University of Nebraska at Kearney: August 19, 2013  
Date Attained Rank of Assistant Professor: August 19, 2013  

**Academic, Government, Military and Professional Positions**

Graduate Faculty, University of Nebraska at Kearney, Academic - Post-Secondary. (March 20, 2014 - Present).  
Assistant Professor, University of Nebraska at Kearney, Academic - Post-Secondary. (August 2013 - Present).  
Assistant Professor of Education, Washburn University, Academic - Post-Secondary. (August 2012 - July 2013).  
Adjunct Professor, University of Nebraska - Lincoln, Academic - Post-Secondary. (August 2007 - July 2013).  

**Teaching**

**Scheduled Teaching**

**Fall 2013**  
MATH 230, Math for Elementary Teachers I, 3 credit hours, 36 students enrolled, On Campus.  
MATH 330, Math for Elem Teachers II, 3 credit hours, 23 students enrolled, On Campus.  
MATH 330, Math for Elem Teachers II, 3 credit hours, 37 students enrolled, On Campus.  
MATH 330H, Math for Elem Teachers II, 3 credit hours, 1 students enrolled, On Campus.

**Spring 2014**  
MATH 230, Math for Elementary Teachers I, 3 credit hours, 33 students enrolled, On Campus.  
MATH 230, Math for Elementary Teachers I, 3 credit hours, 23 students enrolled, On Campus.  
MATH 330, Math for Elem Teachers II, 3 credit hours, 31 students enrolled, On Campus.
MATH 330H, Math for Elem Teachers II, 3 credit hours, 1 students enrolled, On Campus.

Summer 2014
MATH 102, College Algebra, 3 credit hours, 41 students enrolled, On Campus.

Fall 2014
MATH 230, Math for Elementary Teachers I, 3 credit hours, On Campus.
MATH 330, Math for Elem Teachers II, 3 credit hours, On Campus.
MATH 330H, Math for Elem Teachers II, 3 credit hours, On Campus.

Directed Student Learning

Supervision of Students
Honors Program - "H-option" project, Mathematics for the Elementary Teacher II, MATH 330. Fall 2013. 1 supervised.

Scholarship

Intellectual Contributions

Presentations
Nebesniak, A. L. (Author & Presenter). Culler Middle School Faculty Meeting, "Cooperative learning in the middle school classroom," Culler Middle School, Culler Middle School. (August 2013).

Nebesniak, A. L. (Author & Presenter). Schoo Middle School Faculty Meeting, "Cooperative learning in the middle school classroom - Level 2," Schoo Middle School. (July 2011).


Nebesniak, A. L. (Author & Presenter). Schoo Middle School Faculty Meeting, "Cooperative learning in the middle school classroom - Level 1," Schoo Middle School. (July 2010).

Nebesniak, A. L. (Author & Presenter). Columbus Middle School Faculty Meeting, "Cooperative learning in the middle school classroom," Columbus Middle School. (June 2010).

Contracts, Fellowships, Grants, and Sponsored Research

Funded
Nebesniak, A. L. (Co-Principal), Ford, P. L. (Co-Principal), "Pre-Service Mathematics Teacher Conference," Grant, Sponsored by Department of Teacher Education - Program of Excellence Award, University of Nebraska at Kearney, $4,500.00. (January 2015 - May 1, 2015).

Nebesniak, A. L. (Co-Principal), (Co-Principal), "Teaching Mathematics using Mini Projectors," Grant, Sponsored by Department of Teacher Education - Program of Excellence Award, University of Nebraska at Kearney, $1,000.00. (January 2015 - May 1, 2015).

Nebesniak, A. L. (Principal), "Use of Manipulatives in Math Courses for Elementary Teachers," Grant, Sponsored by UNK College of Education - Program of Excellence Award, University of Nebraska at Kearney, $760.00. (December 2013 - May 2014).

Nebesniak, A. L., "Travel Award," Grant, Sponsored by, University of Nebraska at Kearney, $750.00. (September 2013 - December 2013).

Service

Professional Memberships
Association for Supervisors and Curriculum Development. (January 2010 - Present).
Second Vice President, Nebraska Association of Teachers of Mathematics. (August 2002 - Present).

Academic Advising

2012-2013
Undergraduate Students Advised: 25
Graduate Students Advised: 0

Service – Department
Committee Member, Faculty and Student Affairs Committee. (August 2014 - Present).
Committee Member, Graduate Committee. (August 2014 - Present).
Committee Member, Policy and Planning Committee. (August 2014 - Present).
Committee Chair, MATH 230 Course Coordinator. (August 2013 - Present).
Committee Member, Academic Programs. (August 2013 - July 2014).
Committee Member, Assessment Committee. (August 2013 - July 2014).
Committee Member, Search Committee for Assistant Professor positions. (August 2013 - July 2014).
Committee Member, Education Department Undergraduate Committee. (August 2012 - May 2013).
Committee Member, Field Experience Committee. (August 2012 - May 2013).
Committee Member, Technology committee. (August 2012 - May 2013).

**Service – University**

Committee Member, NU STEM Education. (March 2014 - Present).
Speaker, Invited Talk - UNK Learning Commons Tutors. (September 4, 2014).

**Service – Professional**

Session Chair, Greater Nebraska Math Teachers Circle, Grand Island, NE. (November 18, 2013).

**Service – Public**


**Other**

**Faculty Development Activities Attended**

Conference Attendance, "Nebraska Summit on Math and Science Education," University of Nebraska - Lincoln, Lincoln, NE. (December 8, 2014).
Conference Attendance, "Innovation in Pedagogy and Technology Symposium," University of Nebraska Information Technology (UNIT) and the University of Nebraska Online Worldwide, Lincoln, NE, Regional. (May 15, 2014).
Dr. Jacob J. Weiss  
Mathematics  
(308) 865-8551  
Email: weissjj@unk.edu

Academic Degrees
PhD, University of Nebraska - Lincoln, 2007.  
  Major: Mathematics  
  Dissertation Title: Second Order Equations on Time Scales  
MS, University of Nebraska - Lincoln, 2002.  
  Major: Mathematics  
BS, University of Nebraska - Kearney, 2000.  
  Major: Mathematics Comprehensive  
  Supporting Areas of Emphasis: Physics

Administrative Data – Permanent
Starting Rank: Assistant Professor  
Start Date at University of Nebraska at Kearney: August 20, 2007  
Date Attained Rank of Assistant Professor: August 20, 2007

Teaching
Scheduled Teaching

Fall 2010
MATH 101, Intermed Algebra, 3 credit hours, 39 students enrolled, On Campus.  
MATH 103, Plane Trigonometry, 3 credit hours, 37 students enrolled, On Campus.  
MATH 115, Calc I W/Anlyt Geom, 5 credit hours, 24 students enrolled, On Campus.

Spring 2011
MATH 115, Calc I W/Anlyt Geom, 5 credit hours, 36 students enrolled, On Campus.  
MATH 440, Linear Algebra, 3 credit hours, 24 students enrolled, On Campus.  
MATH 440H, Linear Algebra, 3 credit hours, 2 students enrolled, On Campus.

Summer 2011
MATH 123, Applied Calculus I, 3 credit hours, 25 students enrolled, On Campus.

Fall 2011
MATH 101, Intermediate Algebra, 3 credit hours, 46 students enrolled, On Campus.  
MATH 103, Plane Trigonometry, 3 credit hours, 37 students enrolled, On Campus.  
MATH 460, Advanced Calculus I, 3 credit hours, 21 students enrolled, On Campus.

Spring 2012
MATH 260, Calculus III, 5 credit hours, 18 students enrolled, On Campus.  
MATH 305, Differential Equations, 3 credit hours, 17 students enrolled, On Campus.  
MATH 305H, Differential Equations, 3 credit hours, 3 students enrolled, On Campus.
**Summer 2012**
MATH 123, Applied Calculus I, 3 credit hours, 28 students enrolled, On Campus.

**Fall 2012**
MATH 102, College Algebra, 3 credit hours, 45 students enrolled, On Campus.
MATH 202, Calc II w/ Analytic Geometry, 5 credit hours, 31 students enrolled, On Campus.
STAT 241, Elementary Statistics, 3 credit hours, 45 students enrolled, On Campus.

**Spring 2013**
MATH 260, Calculus III, 5 credit hours, 22 students enrolled, On Campus.
MATH 305, Differential Equations, 3 credit hours, 13 students enrolled, On Campus.
MATH 305H, Differential Equations, 3 credit hours, 2 students enrolled, On Campus.
MATH 440, Linear Algebra, 3 credit hours, 24 students enrolled, On Campus.
MATH 440H, Linear Algebra, 3 credit hours, 1 students enrolled, On Campus.

**Summer 2013**
MATH 123, Applied Calculus I, 3 credit hours, 24 students enrolled, On Campus.

**Fall 2013**
MATH 103, Plane Trigonometry, 3 credit hours, 39 students enrolled, On Campus.
MATH 260, Calculus III, 5 credit hours, 15 students enrolled, On Campus.
STAT 241, Elementary Statistics, 3 credit hours, 45 students enrolled, On Campus.

**Spring 2014**
MATH 103, Plane Trigonometry, 3 credit hours, 40 students enrolled, On Campus.
MATH 202, Calc II w/ Analytic Geometry, 5 credit hours, 29 students enrolled, On Campus.
MATH 305, Differential Equations, 3 credit hours, 9 students enrolled, On Campus.
MATH 305H, Differential Equations, 3 credit hours, 1 students enrolled, On Campus.

**Summer 2014**
MATH 123, Applied Calculus I, 3 credit hours, 20 students enrolled, On Campus.
MATH 871, Topics in Math, 3 credit hours, 5 students enrolled, Web Based.

**Fall 2014**
MATH 103, Plane Trigonometry, 3 credit hours, On Campus.
MATH 115, Calculus I w/Analytic Geometry, 5 credit hours, On Campus.
STAT 241, Elementary Statistics, 3 credit hours, On Campus.

**Scholarship**

*Intellectual Contributions*
Service

Academic Advising

2012-2013
Undergraduate Students Advised: 20

2013-2014
Undergraduate Students Advised: 22

Service – Department
Committee Member, Annual and Endowed Scholarships. (August 2013 - May 2014).
Committee Member, Assessment. (August 2013 - May 2014).
Committee Chair, Faculty and Student Affairs. (August 2013 - May 2014).
Committee Member, Graduate. (August 2013 - May 2014).
Committee Chair, Peer Review. (August 2013 - May 2014).
Committee Member, Academic Programs. (August 2012 - May 2013).
Committee Member, Annual and Endowed Scholarships. (August 2012 - May 2013).
Committee Chair, Faculty and Student Affairs. (August 2012 - May 2013).
Committee Chair, Graduate. (August 2012 - May 2013).
Committee Member, Peer Review. (August 2012 - May 2013).

Service – College
Committee Member, Advisory Committee. (August 26, 2013 - Present).

Service – University
Committee Member, Ad Hoc General Studies Assessment Committee. (August 2012 - December 2012).
**Academic Degrees**

PhD, Texas A&M University, 2013.
- Major: Mathematics
- Supporting Areas of Emphasis: Algebraic Geometry
- Dissertation Title: Reality and Computation in Schubert Calculus

MA, The University of Kansas, 2006.
- Major: Mathematics
- Supporting Areas of Emphasis: Algebraic Geometry
- Dissertation Title: The Riemann-Roch Theorem for Compact Riemann Surfaces

- Major: Mathematics
- Supporting Areas of Emphasis: Algebraic Geometry
- Dissertation Title: The Insolvability of the Quintic

**Administrative Data – Permanent**

Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 19, 2013
Date Attained Rank of Assistant Professor: August 19, 2013

**Academic, Government, Military and Professional Positions**

Teaching Assistant/Research Assistant, Texas A&M University, Academic - Post-Secondary. (September 1, 2006 - August 1, 2013).

Graduate Teaching Assistant, The University of Kansas, Academic - Post-Secondary. (September 1, 2003 - August 1, 2006).

**Awards and Honors**

Travel Grant, National Science Foundation, Scholarship/Research, International. (June 1, 2013).
Travel Grant, American Mathematical Society, Scholarship/Research, National. (January 1, 2013).
Travel Grant, National Science Foundation, Scholarship/Research, International. (July 1, 2012).
Travel Grant, University of Iowa, Scholarship/Research, National. (April 1, 2012).
Travel Grant, National Science Foundation, Scholarship/Research, International. (February 1, 2011).
Travel Grant, American Institute of Mathematics, Scholarship/Research, National. (October 1, 2010).

**Teaching**

**Scheduled Teaching**

**Fall 2013**
MATH 102, College Algebra, 3 credit hours, 45 students enrolled, On Campus.
MATH 115, Calculus I w/Analytic Geometry, 5 credit hours, 16 students enrolled, On Campus.

**Spring 2014**
MATH 102, College Algebra, 3 credit hours, 44 students enrolled, On Campus.
MATH 123, Applied Calculus I, 3 credit hours, 32 students enrolled, On Campus.
MATH 440, Linear Algebra, 3 credit hours, 14 students enrolled, On Campus.

**Summer 2014**
MATH 871, Topics in Math, 3 credit hours, 8 students enrolled, Web Based.

**Fall 2014**
MATH 115, Calculus I w/Analytic Geometry, 5 credit hours, On Campus.
MATH 310, College Geometry, 3 credit hours, On Campus.

**Directed Student Learning**
Supervised Research - UGRD, Mathematics. (March 1, 2014 - Present).
Advised: William Broeckelman

**Scholarship**

**Intellectual Contributions**

http://www.tandfonline.com/

**Presentations**

Hein, N. J. Algebra Seminar, "Intersections of Schubert Varieties as Local Complete Intersections," Kansas State University, Manhattan, KS. (November 11, 2013).


**Service**

**Service – Department**
Committee Member, Hiring Search. (September 24, 2013 - April 24, 2014).

**Service – College**
Committee Member, Hiring for Workstation Support Specialist. (October 1, 2013 - Present).

**Service – Professional**
Dr. Pari L. Ford
Mathematics
(308) 865-8553
Email: fordpl@unk.edu

Academic Degrees
PhD, University of Nebraska-Lincoln, 2008.
   Major: Mathematics
   Dissertation Title: The Polynomial LYM Inequality and an Association Scheme on a Lattice
MS, University of Nebraska-Lincoln, 2002.
   Major: Mathematics
BS, University of Nebraska at Kearney, 2000.
   Major: Mathematics

Administrative Data – Permanent
Starting Rank: Assistant Professor
Start Date at University of Nebraska at Kearney: August 18, 2008
Date Attained Rank of Assistant Professor: August 18, 2008

Teaching
Scheduled Teaching

Fall 2010
MATH 101, Intermed Algebra, 3 credit hours, 40 students enrolled, On Campus.
MATH 310, College Geometry, 3 credit hours, 6 students enrolled, On Campus.
MATH 310H, College Geometry, 3 credit hours, 1 students enrolled, On Campus.
MATH 470, Tchg of Sec Math, 3 credit hours, 10 students enrolled, On Campus.
MATH 870P, Tchg of Sec Math, 3 credit hours, 1 students enrolled, On Campus.

Spring 2011
MATH 104, Concepts In Math and Stat, 3 credit hours, 23 students enrolled, On Campus.
MATH 230, Math Elem Tchr's I, 3 credit hours, 21 students enrolled, On Campus.
MATH 430, Middle School Math, 3 credit hours, 10 students enrolled, On Campus.
MATH 430H, Middle School Math, 3 credit hours, 1 students enrolled, On Campus.

Summer 2011
MATH 310, College Geometry, 3 credit hours, 1 students enrolled, On Campus.
MATH 811, Topics in Geom for Sec Sch Thr, 3 credit hours, 23 students enrolled, Web Based.

Fall 2011
MATH 104, Concepts in Math & Statistics, 3 credit hours, 27 students enrolled, On Campus.
MATH 400, History of Math, 3 credit hours, 10 students enrolled, On Campus.
MATH 400H, History of Math, 3 credit hours, 1 students enrolled, On Campus.
MATH 470, Teaching of Secondary Math, 3 credit hours, 6 students enrolled, On Campus.
MATH 470H, Teaching of Secondary Math, 3 credit hours, 1 students enrolled, On Campus.
MATH 800P, History of Math, 3 credit hours, 1 students enrolled, On Campus.

**Spring 2012**
MATH 230, Math for Elementary Teachers I, 3 credit hours, 35 students enrolled, On Campus.
MATH 230H, Math for Elementary Teachers I, 3 credit hours, 1 students enrolled, On Campus.
MATH 330, Math for Elem Teachers II, 3 credit hours, 12 students enrolled, Web Based.
MATH 430, Middle School Math, 3 credit hours, 11 students enrolled, On Campus.

**Summer 2012**
MATH 815, Topics in Discrete Mathematics, 3 credit hours, 20 students enrolled, Web Based.

**Fall 2012**
MATH 123, Applied Calculus I, 3 credit hours, 40 students enrolled, On Campus.
MATH 123, Applied Calculus I, 3 credit hours, 38 students enrolled, On Campus.
MATH 230, Math for Elementary Teachers I, 3 credit hours, 32 students enrolled, On Campus.
MATH 470, Teaching of Secondary Math, 3 credit hours, 12 students enrolled, On Campus.

**Spring 2013**
MATH 102, College Algebra, 3 credit hours, 45 students enrolled, On Campus.
MATH 103, Plane Trigonometry, 3 credit hours, 36 students enrolled, On Campus.
MATH 230, Math for Elementary Teachers I, 3 credit hours, 12 students enrolled, Web Based.
MATH 430, Middle School Math, 3 credit hours, 8 students enrolled, On Campus.

**Fall 2013**
MATH 101, Intermediate Algebra, 3 credit hours, 44 students enrolled, On Campus.
MATH 101, Intermediate Algebra, 3 credit hours, 43 students enrolled, On Campus.
MATH 400, History of Math, 3 credit hours, 10 students enrolled, On Campus.
MATH 400H, History of Math, 3 credit hours, 1 students enrolled, On Campus.
MATH 470, Teaching of Secondary Math, 3 credit hours, 11 students enrolled, On Campus.
MATH 470H, Teaching of Secondary Math, 3 credit hours, 3 students enrolled, On Campus.

**Spring 2014**
MATH 102, College Algebra, 3 credit hours, 45 students enrolled, On Campus.
MATH 106, Mathematics for Liberal Arts, 3 credit hours, 22 students enrolled, On Campus.
MATH 230, Math for Elementary Teachers I, 3 credit hours, 9 students enrolled, Web Based.
MATH 430, Middle School Math, 3 credit hours, 10 students enrolled, On Campus.

**Summer 2014**
MATH 871, Topics in Math, 3 credit hours, 13 students enrolled, Web Based.

**Fall 2014**
MATH 104, Concepts in Math & Statistics, 3 credit hours, On Campus.
MATH 230, Math for Elementary Teachers I, 3 credit hours, On Campus.
MATH 400, History of Math, 3 credit hours, On Campus.
MATH 400H, History of Math, 3 credit hours, On Campus.
MATH 470, Teaching of Secondary Math, 3 credit hours, On Campus.
MATH 470H, Teaching of Secondary Math, 3 credit hours, On Campus.

**Directed Student Learning**

Advised: Alicia Titus

Advised: Erin Nelson

**Scholarship**

**Intellectual Contributions**

**Presentations**
Ford, P. L. Kansas City Regional Mathematics Technology EXPO, "Flipping a Math Content Course for Pre-Service Elementary Teachers using Video, YouTube, and iPad apps," Kansas City, MO. (October 4, 2013).
Ford, P. L. Joint Section Meeting for the Mathematical Association of America, "Flipping Fun," Mathematical Association of America (MAA), Marysville, MO. (April 2013).

**Contracts, Fellowships, Grants, and Sponsored Research**

**Funded**
Nebesniak, A. L. (Co-Principal), Ford, P. L. (Co-Principal), "Pre-Service Mathematics Teacher Conference," Grant, Sponsored by Department of Teacher Education - Program of Excellence Award, University of Nebraska at Kearney, $4,500.00. (January 2015 - May 1, 2015).

**Service**

**Professional Memberships**
Association for Women in Mathematics. (September 2009 - Present).
1st VP, 2nd VP, President, Past President, Nebraska Association of Teachers of Mathematics. (August 2008 - Present).
Project NExT. (August 2008 - Present).

**Academic Advising**

**2011-2012**
Undergraduate Students Advised: 14
Graduate Students Advised: 8

**2012-2013**
Undergraduate Students Advised: 14
Graduate Students Advised: 3

2013-2014
Undergraduate Students Advised: 9
Graduate Students Advised: 8

Service – Department
Committee Member, Search Committee for Math Department. (October 2013 - Present).
Faculty Advisor, Math Club. (August 2009 - Present).
Committee Chair, Search Committee for Math Department (Math Ed Position). (September 2012 - April 2013).

Service – College
Committee Member, Ed Policy Committee. (August 2013 - Present).

Service – University
volunteer tutor in the Learning Commons, Math in the Afternoon with Dr. Pari Ford. (September 2012 - Present).
Faculty Advisor, Yoga Community. (September 2012 - Present).
Committee Member, UNK Advisory Council on Teacher Education. (October 2010 - Present).
Committee Member, Women's and Gender Studies Advisory Council. (September 2010 - Present).
Committee Member, Advisory Board for the Academic Success Offices. (September 2009 - Present).
Committee Member, Chancellor's Advisory Council on Gender Equity. (September 2009 - Present).
Committee Member, Science/Math Education M.S.Ed. committee. (September 2008 - Present).
Committee Member, Search Committee for a co-director of the Learning Commons. (April 2013 - August 2013).

Service – Professional
Program Organizer, Central Nebraska Math Teachers' Circle, Kearney, NE. (September 2008 - Present).
Nebraska/SE South Dakota Section Governor, Mathematical Association of America, Nebraska. (July 1, 2011 - June 30, 2014).
Officer, President/Elect/Past, Nebraska Association of Teachers of Mathematics, Nebraska. (January 1, 2010 - December 31, 2013).
Invited participant, Kansas City Regional Math Leadership, Kansas City, MO. (February 15, 2013).
Committee Member, Nebraska Department of Education, Ad-Hoc Committee on Rule 24, Lincoln, NE. (February 16, 2012).
Chairperson, Nebraska/SE South Dakota section of the MAA, Kearney, NE. (April 8, 2011 - April 9, 2011).
Reviewer, Ad Hoc Reviewer, NCATE, Lincoln, NE. (November 2010).
Jose L. Mena-Werth
Physics  
Email: werthj@unk.edu

Administrative Data – Permanent
Starting Rank: Associate Professor
Start Date at University of Nebraska at Kearney: August 17, 1992
Date Attained Rank of Associate Professor: August 17, 1998
Date Attained Rank of Full Professor: August 16, 2004
Tenure Decision Date: August 1, 1998

Teaching
Scheduled Teaching

Fall 2010
PHYS 210, Astronomy, 3 credit hours, 58 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 34 students enrolled, On Campus.
PHYS 210H, Astronomy, 3 credit hours, 1 students enrolled, On Campus.
PHYS 471, Meth Sec Sci Tchg, 3 credit hours, 4 students enrolled, On Campus.

Spring 2011
PHYS 100, Physical Science, 3 credit hours, 41 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 38 students enrolled, On Campus.
PHYS 811, Astronomy for HS Teachers, 3 credit hours, 1 students enrolled, On Campus.

Fall 2011
PHYS 100L, Physical Science Laboratory, 1 credit hours, 19 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 32 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 60 students enrolled, On Campus.
PHYS 211, Planetary Astronomy, 3 credit hours, 6 students enrolled, On Campus.

Spring 2012
PHYS 100, Physical Science, 3 credit hours, 46 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 28 students enrolled, On Campus.

Summer 2012
PHYS 811, Astronomy for HS Teachers, 3 credit hours, 12 students enrolled, Web Based.
PHYS 811, Astronomy for HS Teachers, 0 credit hours, 12 students enrolled, On Campus.

Fall 2012
PHYS 100, Physical Science, 3 credit hours, 47 students enrolled, On Campus.
PHYS 100, Physical Science, 3 credit hours, 21 students enrolled, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, 20 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 45 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 60 students enrolled, On Campus.

Spring 2013
PHYS 100, Physical Science, 3 credit hours, 24 students enrolled, On Campus.
PHYS 100, Physical Science, 3 credit hours, 47 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 26 students enrolled, On Campus.
PHYS 301, Advanced Physical Science, 4 credit hours, 12 students enrolled, On Campus.
PHYS 301, Advanced Physical Science, 0 credit hours, 12 students enrolled, On Campus.

Fall 2013
PHYS 100, Physical Science, 3 credit hours, 49 students enrolled, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, 21 students enrolled, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, 21 students enrolled, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, 26 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 36 students enrolled, On Campus.
PHYS 800, Advanced Physical Science, 3 credit hours, 18 students enrolled, Web Based.
PHYS 800, Advanced Physical Science, 0 credit hours, 18 students enrolled, Web Based.

Spring 2014
PHYS 100, Physical Science, 3 credit hours, 41 students enrolled, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, 21 students enrolled, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, 21 students enrolled, On Campus.
PHYS 210, Astronomy, 3 credit hours, 33 students enrolled, On Campus.
PHYS 301, Advanced Physical Science, 4 credit hours, 5 students enrolled, On Campus.
PHYS 301, Advanced Physical Science, 0 credit hours, 5 students enrolled, On Campus.
PHYS 301H, Advanced Physical Science, 4 credit hours, 1 students enrolled, On Campus.
PHYS 301H, Advanced Physical Science, 0 credit hours, 1 students enrolled, On Campus.

Fall 2014
PHYS 100, Physical Science, 3 credit hours, On Campus.
PHYS 100, Physical Science, 3 credit hours, On Campus.
PHYS 100, Physical Science, 3 credit hours, On Campus.
PHYS 100L, Physical Science Laboratory, 1 credit hours, On Campus.
PHYS 210, Astronomy, 3 credit hours, On Campus.
Kenneth W. Trantham  
Physics  
(308) 865-8278  
Email: tranthamkw@unk.edu

Academic Degrees  
PhD, University of Nebraska Lincoln, 1900.  
Major: Physics  
Dissertation Title: Electron Dichroism in Champhor  
MS, University of Missouri, Rolla, 1900.  
Major: Physics  
Dissertation Title: Nobel Gas Electron Spin Polarimeter

Administrative Data – Permanent  
Starting Rank: Associate Professor  
Start Date at University of Nebraska at Kearney: August 17, 2009  
Date Attained Rank of Associate Professor: August 17, 2009  
Tenure Decision Date: August 17, 2009

Academic, Government, Military and Professional Positions  
Military.

Awards and Honors  
Honorary Induction, XiPhi Mortar Board. (April 11, 2014).

Teaching  
Scheduled Teaching

Fall 2010  
PHYS 205, Gen Physics, 5 credit hours, 46 students enrolled, On Campus.  
PHYS 388, GS Capstone, 3 credit hours, 2 students enrolled, On Campus.  
PHYS 388L, GS Capstone Lab, 1 credit hours, 2 students enrolled, On Campus.  
PHYS 401, Analytic Mechanics II, 3 credit hours, 1 students enrolled, On Campus.

Spring 2011  
PHYS 206, Gen Physics, 4 credit hours, 41 students enrolled, On Campus.  
PHYS 323, Intro Electron, 4 credit hours, 9 students enrolled, On Campus.  
PHYS 323H, Introductory Electronics, 4 credit hours, 2 students enrolled, On Campus.

Summer 2011  
PHYS 206, General Physics, 4 credit hours, 14 students enrolled, On Campus.  
PHYS 206L, Physics Laboratory II, 1 credit hours, 14 students enrolled, On Campus.

Fall 2011  
PHYS 205, Physics I, 4 credit hours, 49 students enrolled, On Campus.  
PHYS 323, Introductory Electronics, 4 credit hours, 3 students enrolled, On Campus.  
PHYS 323, Introductory Electronics, 0 credit hours, 3 students enrolled, On Campus.
PHYS 388, GS Capstone, 3 credit hours, 2 students enrolled, On Campus.
PHYS 388L, GS Capstone Lab, 1 credit hours, 2 students enrolled, On Campus.
PHYS 400, Analytic Mechanics I, 3 credit hours, 2 students enrolled, On Campus.

Spring 2012
PHYS 206, General Physics II, 4 credit hours, 32 students enrolled, On Campus.
PHYS 401, Analytic Mechanics II, 3 credit hours, 2 students enrolled, On Campus.
PHYS 498, Senior Seminar in Physics, 3 credit hours, 2 students enrolled, On Campus.
PHYS 800, Advanced Physical Science, 3 credit hours, 1 students enrolled, On Campus.

Summer 2012
PHYS 206, General Physics II, 4 credit hours, 10 students enrolled, On Campus.
PHYS 206L, Physics Laboratory II, 1 credit hours, 9 students enrolled, On Campus.

Fall 2012
PHYS 323, Analog and Digital Electronics, 3 credit hours, 8 students enrolled, On Campus.
PHYS 323, Analog and Digital Electronics, 0 credit hours, 8 students enrolled, On Campus.
PHYS 388, GS Capstone, 3 credit hours, 5 students enrolled, On Campus.
PHYS 388L, GS Capstone Lab, 1 credit hours, 5 students enrolled, On Campus.
PHYS 498, Senior Seminar in Physics, 3 credit hours, 1 students enrolled, On Campus.

Spring 2013
PHYS 100L, Physical Science Laboratory, 1 credit hours, 24 students enrolled, On Campus.
PHYS 206, General Physics II, 4 credit hours, 9 students enrolled, On Campus.
PHYS 435, Solid State Physics, 3 credit hours, 3 students enrolled, On Campus.

Summer 2013
PHYS 206L, Physics Laboratory II, 1 credit hours, 3 students enrolled, On Campus.

Fall 2013
PHYS 323, Analog and Digital Electronics, 3 credit hours, 5 students enrolled, On Campus.
PHYS 323, Analog and Digital Electronics, 0 credit hours, 5 students enrolled, On Campus.
PHYS 388, GS Capstone, 3 credit hours, 5 students enrolled, On Campus.
PHYS 388L, GS Capstone Lab, 1 credit hours, 5 students enrolled, On Campus.

Spring 2014
PHYS 100, Physical Science, 3 credit hours, 39 students enrolled, On Campus.
PHYS 420, Adv Lab, 3 credit hours, 2 students enrolled, On Campus.
PHYS 498, Senior Seminar in Physics, 3 credit hours, 1 students enrolled, On Campus.

Fall 2014
PHYS 275, General Physics I (Calc), 4 credit hours, On Campus.
PHYS 323, Analog and Digital Electronics, 3 credit hours, On Campus.
PHYS 323, Analog and Digital Electronics, 0 credit hours, On Campus.

Scholarship

Presentations
Trantham, K. W. •Xi Phi Chapter of Mortar Board “Last Lecture”. (March 2012).

Contracts, Fellowships, Grants, and Sponsored Research

Funded
Trantham, K. W. (Principal), ""Public awareness of Science through Astrophotography"," Grant, Sponsored by NASA Nebraska Space Grant, State, $11,607.00. (September 2013 - April 2014).

Service

Administrative Assignments
Department Chairperson, Department. (August 1, 2002 - Present).

Academic Advising

2011-2012
Undergraduate Students Advised: 40

Service – Department
Committee Chair, Search committee. (2012).

Service – College
willing participant, Health Science Pie Canned Food Drive. (November 2013).
Committee Chair, CNSS advisory Committee. (2012 - April 2013).
CNSS representative for Donguk and Hanyang University visit, Seoul Korea, November 2012. (November 2012).

Service – University
Committee Member, Learning Commons Advisory Committee. (2012 - Present).
Committee Member, Representative to the Nebraska Academy of Science annual meeting. (2011 - Present).
Committee Member, UNK Academic Appeals Committee. (2009 - Present).
Committee Chair, Astrophotgraphy. (August 2014 - December 2014).
Faculty Welcome Presentation., Blue and Bold Welcome Week. (August 23, 2014).
Committee Chair, Faculty Senate President. (April 2013 - April 2014).
Campus Fee Committe. (November 2013 - March 2014).
Committee Member, Coordinator of Academic Publications Search Committee. (November 2013 - February 2014).
PHYSICS HELP NIGHT. (December 2012 - December 2013).
Committee Member, General Studies Council (Daren Snider, Chair). (2011 - 2013).
Faculty Senate President Elect (Fall 2012). (April 2012 - April 2013).
Committee Chair, Professional Conduct committee. (April 2011 - April 2013).
Committee Member, Assessment Director Search. (November 2012 - March 2013).
Campus Fee Committee. (2012).
Faculty Senate President Secretary (spring 2012). (2012).
Committee Member, NCA Criterion #3 Team member. (2012).
UNK representative on NU UARC site visits. (traveled to Penn St. and Utah St.). (2012).
Committee Chair, Peter Kiewit/Walter Scott selection committee (Chair 2012. 2/28/12). (February 2012).

Service – Professional
Served as competition judge at the 2012 First Lego League area competition held at Kearney Catholic Saturday 1/7/2012. (February 2012).

Service – Public
Committee Member, Nebraska Junior Academy of Science, Nebraska. (2012 - Present).
Committee Member, NASA Space Grant Technical Advisory Committee, Nebraska. (2009 - Present).

Other

Faculty Development Activities Attended
Teacher Education Faculty

Anderson, Kenneth

Personal & Contact Info
Male / White

Administrative Data – Permanent Data
Starting Rank – Lecturer
Start Date at UNK – January 8, 2001
Date Attained Associate Professor – August 13, 2012

Academic, Government, Military, and Professional Positions
Superintendent – Hastings Public Schools
Superintendent – Kearney Public Schools
Adjunct Instructor – UNK
Adjunct Lecturer – UNK
Associate Professor/Department Chair – UNK
Lecturer – UNK

Administrative Assignments
Department Chairperson

Education
BA – North Park College – Educational Psychology
MS – UNO – Educational Psychology
PhD – UNL – Administration, Curriculum, and Instruction

Scheduled Teaching (since August 2010)
TE 100 / TE 188 / TE 498 / TE 800 / TE 803 / TE 816A / TE 896 / TE 898 / TE 899P / TESE 421 / TESE 821P
Bruner, Patricia

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
Starting Rank – Lecturer
Start Date at UNK – August 15, 2011

Academic, Government, Military, and Professional Positions
N/A

Administrative Assignments
N/A

Education
BSEd – Wayne State College – Elementary Education – 1972

Scheduled Teaching (since August 2010)
TE 204 / TE 318 / TE 331 / TE 408 / TE 472 / TE 473 / TE 808P / TE 809P
Crow, Sherry

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
Starting Rank – Lecturer
Start Date at UNK – August 14, 2006
Date Attained Assistant Professor – August 18, 2008
Date Attained Associate Professor – August 19, 2013

Academic, Government, Military, and Professional Positions
Children’s Librarian and Department Head – Hays Public Library
Lecturer – Fort Hays State University
Senior Librarian – West Milford Township Public Library
Literature Specialist – University Center for Gifted Children
Children’s Librarian and Department Head – Pequannock Public Library
Reference and Audio-Visual Librarian – Schaumburg Township District Library
Library Media Specialist- Hawthorn School District
Adjunct Professor – Emporia State University
Library Technology Educator – Colorado Springs School District 11
Adjunct Professor – University of Colorado at Denver

Administrative Assignments
N/A

Education
BS – Fort Hays State University – Elementary Education
MS – Brigham Young University – Library Science
PhD – Emporia State University – Library and Information Management

Scheduled Teaching (since August 2010)
TE 867 / TE 869 / TE 871 / TE 873 / TE 875 / TE 893 / TE 899P
Earls, Jennifer (part-time)

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
N/A

Academic, Government, Military, and Professional Positions
N/A

Administrative Assignments
N/A

Education
BS – Southern Illinois University – Biological Science, Secondary Education Concentration
MS – Southern Illinois University – Curriculum and Instruction, Science and Environmental Education
PhD – Southern Illinois University – Curriculum and Instruction, Instructional Technology

Scheduled Teaching (since August 2010)
TE 800 / TE 874
**Fredrickson, Scott**

**Personal & Contact Info**
Male / White

**Administrative Data – Permanent Data**
Starting Rank – Professor
Start Date at UNK – August 17, 1992
Date Attained Full Professor – August 15, 2000
Tenure Decision Date – August 1, 1998

**Academic, Government, Military, and Professional Positions**
Clerical – Federal Bureau of Investigation
Sergeant – US Air Force
First Lieutenant – US Army
Deputy Sheriff – Lubbock Sheriff’s Office
Computer Science/History/Geography Teacher/Football Coach – Lubbock ISD
Assistant Professor – University of Alaska Southeast
Assistant Professor/Associate Professor/Professor – UNK

**Administrative Assignments**
Coordinator

**Education**
EdD – Texas Tech University – Instructional Technology

**Scheduled Teaching (since August 2010)**
TE 810 / TE 868 / TE 870 / TE 877 / TE 878 / TE 880 / TE 881 / TE 882 / TE 884 / TE 885 / TE 887 / TE 889 / TE 891 / TE 896
Gaskill, Martonia

Personal & Contact Info
Female / Hispanic-Latino of Any Race

Administrative Data – Permanent Data
Starting Rank – Lecturer
Start Date at UNK – August 13, 2012

Academic, Government, Military, and Professional Positions
N/A

Administrative Assignments
N/A

Education
Med – UNK – Instructional Technology
PhD – UNL – Instructional Technology

Scheduled Teaching (since August 2010)
TE 206 / TE 803 / TE 886P
Hansen, Tom

Personal & Contact Info
Male / White

Administrative Data – Permanent Data
Starting Rank – Associate Professor
Start Date at UNK – August 24, 1989
Date Attained Associate Professor – August 14, 1995
Tenure Decision Date – August 1, 1995

Academic, Government, Military, and Professional Positions
Elementary Teacher – Frederick Public School System
Elementary Teacher – Jackson Public School System
Remedial Reading Teacher – Estelline Public School System
Elementary Teacher – Watertown Public School District
Elementary Principal – Canistota Public School
Instructor – Sioux Falls College
Elementary Principal – Tri-Valley School District
Graduate Assistant Instructor – University of South Dakota
Associate Professor - UNK

Administrative Assignments
N/A

Education
BA – Northern State College – Elementary Education
MEd – South Dakota State University – Guidance and Counseling
Med – South Dakota State University – Elementary Administration
EdD – University of South Dakota - Reading

Scheduled Teaching (since August 2010)
TE 206 / TE 816B / TE 845 / TE 846 / TE 850 / TE 853C / TE 854 / TE 897
Lilienthal, Linda

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
Starting Rank – Assistant Professor
Start Date at UNK – August 13, 2012
Date Attained Assistant Professor – August 13, 2012

Academic, Government, Military, and Professional Positions
Instructor – Midwestern State University
Assistant Professor – Midwestern State University
Assistant Professor – UNK

Administrative Assignments
Coordinator
Director

Education
BA – Kearney State College – Elementary Education
MA – UNK – Elementary Education
EdD – University of Northern Colorado – Educational Studies, Elementary Education, Reading

Scheduled Teaching (since August 2010)
TE 314 / TE 315 / TE 317 / TE 809 / TE 816A / TE 816B / TE 846 / TE 897
Mishou, Robert (part-time)

Personal & Contact Info
Male / White

Administrative Data – Permanent Data
Starting Rank – Lecturer
Start Date at UNK – June 5, 2006

Academic, Government, Military, and Professional Positions
N/A

Administrative Assignments
N/A

Education
BA – UNK – Education
MA – UNK – Curriculum & Instruction

Scheduled Teaching (since August 2010)
TE 803
**Nielsen, Diane (part-time)**

**Personal & Contact Info**
Female / White

**Administrative Data – Permanent Data**
Starting Rank – Lecturer
Start Date at UNK – July 7, 2008

**Academic, Government, Military, and Professional Positions**
N/A

**Administrative Assignments**
N/A

**Education**
MS – Kearney State College
PhD – UNL – Administration, Curriculum & Instruction

**Scheduled Teaching (since August 2010)**
TE 804
Potthoff, Dennis

Personal & Contact Info
Male / White

Administrative Data – Permanent Data
Starting Rank – Associate Professor
Start Date at UNK – August 19, 1996
Date Attained Rank of Full Professor – August 18, 2003
Tenure Decision Date – August 1, 1998

Academic, Government, Military, and Professional Positions
Junior High School Studies Teacher – Lexington Junior High School
7th Grade Social Studies/Basic Studies Teacher – Lincoln Lefler Junior High School
Middle School Social Studies Teacher – Rideau Valley Middle School
Secondary 7-12 Social Studies Teacher – Wilber-Clatonia Schools
Assistant Professor – Wichita State University

Administrative Assignments
Associate Dean
Coordinator
Department Chairperson

Education
BS – UNL – Social Science Education (7-12)
MSEd – UNL – Curriculum & Instruction
PhD – UNL – Administration, Curriculum & Instruction

Scheduled Teaching (since August 2010)
TE 100 / TE 803 / TE 850 / TE 899P
**Renner, Carol**

**Personal & Contact Info**
Female / White

**Administrative Data – Permanent Data**
N/A

**Academic, Government, Military, and Professional Positions**
N/A

**Administrative Assignments**
N/A

**Education**
BA – Fonbonne College – Foreign Language in the Elementary School
MAEd – University of Missouri-Columbia – Learning Disabilities (Special Education)
Other – Specialist in Education – UNL – Educational Administration
PhD – UNL – Administration, Curriculum and Instruction

**Scheduled Teaching (since August 2010)**
TE 817P / EDAD 831
Saulsbury, Ashley (part-time)

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
N/A

Academic, Government, Military, and Professional Positions
N/A

Administrative Assignments
N/A

Education
N/A

Scheduled Teaching (since August 2010)
TE 311 / TE 313 / TE 316 / TE 408 / TE 808P / TE 897
Tracy, Glenn

Personal & Contact Info
Male / White

Administrative Data – Permanent Data
Starting Rank – Assistant Professor
Start Date at UNK – August 16, 1999
Date Attained Associate Professor – August 16, 2004
Tenure Decision Date – August 16, 2005

Academic, Government, Military, and Professional Positions
N/A

Administrative Assignments
N/A

Education
MA – Truman State University – English
EdD – Oklahoma State University – Curriculum & Instruction

Scheduled Teaching (since August 2010)
TE 100 / TE 188 / TE 204 / TE 327 / TE 328 / TE 329 / TE 408 / TE 804 / TE 807P / TE 808P / TE 825 / TE 826
Vu, Phu

Personal & Contact Info
Male / Asian

Administrative Data – Permanent Data
Starting Rank – Assistant Professor
Start Date at UNK – August 19, 2013

Academic, Government, Military, and Professional Positions
Founder and Executive Manager – E-Center for Professional Development
Assistant Professor – UNK
Distinguished Program Committee Member – Association for Teacher Educators
Editorial Board Member – International Journal of 21st Century Education

Administrative Assignments
N/A

Education
PhD – Southern Illinois University Carbondale – Curriculum and Instruction

Scheduled Teaching (since August 2010)
TE 206 / TE 876 / TE 866P
West, Camie

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
Starting Rank – Lecturer
Start Date at UNK – August 15, 2011

Academic, Government, Military, and Professional Positions
Summer School Teacher – Kearney Public Schools
K-6 Special Education Teacher/Behavior Interventionist – Lexington Public Schools
K-12 Special Education Teacher – Elm Creek Public Schools
7-12 Special Education Teacher – Elm Creek Public Schools
Adjunct – UNK
Lecturer – UNK

Administrative Assignments
N/A

Education
BAEd – Kearney State College – Elementary Education & Special Education K-6
Other – Additional Endorsement – UNK – Special Education 7-12
MAEd – UNK – Special Education-Specific Learning Disabilities

Scheduled Teaching (since August 2010)
TE 204 / TE 805P / TESE 421 / TESE 463 / TESE 464 / TESE 468 / TESE 821P / TESE 864P
Wojcik, Brian

Personal & Contact Info
Male / White

Administrative Data – Permanent Data
Starting Rank – Assistant Professor
Start Date at UNK – August 19, 2013

Academic, Government, Military, and Professional Positions
Teacher of Students with Multiple Needs – Illinois State University Laboratory Schools
Teacher of Students with Emotional and Behavior Disorders – Olympia High School and Middle School
Resource/Inclusion Teacher – West-Lincoln Boardwell Elementary
Special Education Assistive Technology Center Coordinator – Illinois State University

Administrative Assignments
N/A

Education
BSEd – Illinois State University – Deaf and Hard of Hearing; Elementary Education
MSEd – Illinois State University – Special Education – Learning Disabilities/Behavior Disorders
EdD – Illinois State University – Special Education and Assistive Technology

Scheduled Teaching (since August 2010)
TE 804 / TE 805P / TESE 430 / TESE 463 / TESE 831 / TESE835 / TESE 863 / TESE 867
Ziebarth, Jane

Personal & Contact Info
Female / White

Administrative Data – Permanent Data
Starting Rank – Assistant Professor
Start Date at UNK – August 24, 1984
Date Attained Rank of Associate Professor – August 17, 2009
Tenure Decision Date – August 1, 2002

Academic, Government, Military, and Professional Positions
Research Intern – United State Senate
Director – Nebraska Department of Education

Administrative Assignments
N/A

Education
BAEd – Kearney State College – Social Science
MAEd – UNK – Comprehensive Degree in Social Science
PhD – UNL – Administration, Curriculum and Instruction

Scheduled Teaching (since August 2010)
TE 100 / TE 408 / TE 808P / TE 815P