# Jason M. Katzmann

University of Wyoming at Casper 125 College Drive Casper Wyoming 82601 (719) 650-0598 (cell); (307) 268-2583 (office) Email: jkatzma1@uwyo.edu or jkatzman1@hotmail.com

## **EDUCATION**

- Ph.D. 2007 University of Northern Colorado Biological Education Dissertation: The Influence of Implementing State-Mandated Science Assessment on Teacher Practice
- M.A. 2000 Colorado College Integrated Natural Science *Thesis: The road to becoming a constructivist teacher.*
- Cert. 1995 University of North Texas Secondary Education Composite Science Certification
- B.S. 1994 Texas Women's University Major Human Biology, Minor Chemistry

## **AWARDS and HONORS**

Wyoming Coach/Adult Mentor of the year award for First Lego League robotics competition, 2010.

Colorado Graduate Fellowship, University of Northern Colorado, 2003-2004

Graduate Assistantship, University of Northern Colorado, 2003-2004

Teaching Assistantship, University of Northern Colorado, 2003-2004

## **PROFESSIONAL EXPERIENCE:**

2007 – present Unive	ersity of Wyoming/Casper College Center, College of Education Assistant Professional Lecturer of Educational Studies Temporary Assistant Professor of Secondary Education Adjunct Assistant Professor for Elementary Education and Early Childhood Adjunct Assistant Professor of Zoology
	Courses Taught: Educational Assessment, Teacher as Practitioner, Secondary Science Methods I, Secondary Science Methods II, Biological Science Methods for Agricultural Education Majors, Pre-Service Teacher Residency, Elementary Math/Science Methods, Environmental Science for Educators, Mammalogy, Midpoint Portfolio Reflection, Advanced Instructional Strategies, Life Science in a Global Perspective, Field Science, Informal Science Education, Outdoor Education Internship, Curriculum Development, Various Independent Studies
2004 - 2007	Harrison School District Two, Colorado Springs, CO Secondary Science Specialist District Science Fair Coordinator

University of Northern Colorado, College of Natural and Health Sciences Graduate Teaching Assistantship in School of Biological Sciences		
Courses Taught: Life Science for Elementary Educators, Human Anatomy Lab, Elementary Science Methods		
Harrison School District Two, Colorado Springs, CO Secondary Science Resource Teacher		
Sierra High School, Harrison School District #2, Colorado Springs, CO Science Department Chair Biology and Chemistry Teacher Assistant Girls Volleyball Coach		
Courses Taught: General Biology, General Chemistry, Advanced Placement Biology, Molecular Biology, Microbiology		
Carmel Middle School, Harrison School District #2, Colorado Springs, CO Science Department Chair Science Teacher Girls Volleyball Coach Boys and Girls Track Coach Sponsor: Springs Youth Naturally, Student Council, Invention Convention, and Stock Market Challenge		

Courses Taught: Life Science, Physical Science, Earth Science

## PUBLICATIONS

## **Peer Reviewed Works**

Burrows, A.C.; Swarts, G.P.; Hutchison, L.; Katzmann, J.M.; Thompson, R.; Freeman, L.; Schanke, A.; Kilty, T.; Reynolds, T. (2021). Finding spaces: Teacher education technology competencies (TETCs). *Educ. Sci.*, 11, 733. <u>https://doi.org/10.3390/educsci11110733</u>

## **Evaluation Projects**

Katzmann, J. M. (2013). Wyoming Project Learning Tree implementation survey brief. Evaluation of Project Learning Tree's state wide implementation, training and needs.

Katzmann, J. M., Forrester, J. H. (2011). Casper Mountain Science School program evaluation.

## Non Peer Reviewed Works

Katzmann, J. M. (2013). Legos. Garden Creek Falls. June

### **CONFERENCE PRESENTATIONS**

### National/International Papers

#### Refereed

- Burrows, A.C., Katzmann, J.M. (2015). *The edTPA: Successes and challenges for pre-service teachers at the University of Wyoming*. Paper presented at the Association for Science Teacher Education international conference, Portland Oregon.
- Katzmann, J. M., Forrester, J. H., Pontius, J. (2012). *Increasing secondary science preservice teacher self-efficacy and pedagogical content knowledge; a place-based approach*. Paper presented at the Association for Science Teacher Education international conference, Clearwater Florida.
- Forrester, J. H., Katzmann, J. M., Pontius, J. (2012). *Science teacher identity formation: Possible- selves and non-formal teaching experiences.* Paper presented at the Association for Science Teacher Education international conference, Clearwater Florida.
- Forrester, J. H., Katzmann, J. M. (2012). *Science educator identity formation: The impact of place-based teaching opportunities.* Paper presented at the National Association for Research in Science Teaching international conference, Indianapolis Indiana.
- Katzmann, J.M. (2009). *The change in high school science teacher practices following the implementation of high-stakes testing*. Paper presented at the Association for Science Teacher Education international conference, Hartford Connecticut.
- Katzmann, J.M., Higgins, T., Saunders, G. (2007). The impact standards and mandated testing have on high school biology teacher's lesson planning, instructional and assessment practices. Paper presentation at the Association for Science Teacher Education international conference, Clearwater Florida.

#### National/International Presentations, Workshop Sessions, and Posters

- Katzmann, J.M., Schaller, E., 2017. Using the Local Watershed to Integrate Science in K-12 Education. Poster accepted for the North American Association of Environmental Education conference, San Juan Puerto Rico.
- Katzmann, J.M., Schaller, E., 2017. *Teaching the properties of water using 3D models*. Bright Sport workshop session accepted for the North American Association of Environmental Education conference, San Juan Puerto Rico.
- Schaller, E., Katzmann, J.M., 2017. *Utilizing place pedagogies to engage real-world watershed investigations*. Hands-on workshop session accepted for the North American Association of Environmental Education conference, San Juan Puerto Rico.
- Katzmann, J.M., Bodey, K., 2016. *Utilizing place-based pedagogies to engage real-world watershed investigations: A community-based model (UPPER WInd).* Poster presented at the United States Department of Education's Math and Science Partnership conference, Baltimore Maryland.

- Katzmann J.M., Higgins, T., Saunders, G., 2005. *Colorado high school science teachers instructional practices, assessment practices, and use of time prior to CSAP implementation.* Poster presented at the Association for Science Teacher Education annual conference, Colorado Springs Colorado.
- Banta, M.R., Katzmann, J.M., Mackessy, S.P. 2005. Evaporative water loss during ecdysis in snakes from a broad range of habitats. Poster presented at The Society for Integrative and Comparative Biology's annual meeting, San Diego California.

#### **State Presentations, Workshop Sessions, and Posters**

- Katzmann, J.M., Higgins, T., Parrish, J. (2021). Make and take revised: Phenomena based learning. Presented at the Colorado Science Teacher Virtual Conference, Denver Colorado over Zoom.
- Katzmann, J. M. (2021). *Project Wet, Wild and Learning Tree*. Professional development for pre-service teachers in Sheridan Wyoming. April 2021.
- Katzmann, J.M., Katzmann, J. M., Halverson, J., & Scharosch, H. (2019). Project WET, Wild and Learning Tree Facilitator Workshop. Professional development for state facilitators of Project WET, Wild and Learning Tree in Dubois Wyoming, August 2019.
- Katzmann, J. M. (2018). UPPER WInd III math and science partnership summer professional development in Fremont County Wyoming. Principle Investigator and Facilitator for teacher professional development in June and July in Lander and Riverton Wyoming.
- Katzmann, J. M., Wellman, J., & Trumble, K., (2018). Project Wet. Professional development for inservice teachers on Wind River Reservation in Fremont County Wyoming. April 2018.
- Katzmann, J. M. (2018). *Project Wet, Wild and Learning Tree*. Professional development for in-service teachers in Natrona County Wyoming. April 2018.
- Katzmann, J. M. (2017). UPPER WInd II math and science partnership yearlong professional development in Fremont County Wyoming. Principle Investigator and Facilitator for teacher professional development in April, June, and July in Riverton Wyoming.
- Katzmann, J. M. (2017). *Project Wet, Wild and Learning Tree*. Professional development for in-service teachers in Fremont County Wyoming. June 2017
- Katzmann, J. M. (2016). UPPER WInd II math and science partnership yearlong professional development in Fremont County School District #25. Principle Investigator and Facilitator for teacher professional development in April, June, July, and November in Riverton and Dubois Wyoming.
- Katzmann, J.M. (2016). FLL Robotics: Utilizing Lego Digital Designer to increase team efficiency. Workshop session conducted at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.

- Katzmann, J.M. (2016). *Make and take lessons presented by NSTA student chapter UWC*. Workshop session conducted at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J.M. (2016). UPPER WInd interactive poster session. Workshop session conducted at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Thompson, R.T., Katzmann, J.M., Hutchison, L. (2016). *STEM integrated instruction; Using flight to connect disciplines.* Presented at the Wyoming Roadmap to STEM Conference, Rocksprings Wyoming.
- Katzmann, J.M. (2015). *Engage and take lessons*. Workshop session conducted at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J. M. (2015). UPPER WInd math and science partnership summer professional development in Fremont County School District #25. Principle Investigator and Facilitator for teacher professional development in June and July, Riverton Wyoming.

Katzmann, J. M. (2015). *Project Wet, Wild and Learning Tree*. Preservice and in-service teacher professional development. February 2015

- Katzmann, J. M. (2014). *Make and Take Lessons by NSTA UW&CC student chapter*. Presented at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J. M. (2013). *Ready to use science by NSTA UW&CC student chapter*. Presented at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J. M. (2012). *INBRE research across Wyoming*. Collaborative presentation at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J. M. (2012). *Ready to use science by NSTA UW&CC student chapter*. Presented at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Brown, E., Katzmann, J. M., Jacobs, C. (2012). Outdoor science on Casper Mountain: Place for letting nature teach. Presentation at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J. M. (2012). K-12 pipeline opportunities for biomedical research and INBRE collaborations. Presentation at the Wyoming INBRE Community College Network Retreat, held at the AMK UW-NPS Research Station in Grand Teton National Park.
- Katzmann, J. M., McBride, S., Slater, T. (2011). Wyoming society of college science teacher's town hall. Town hall meeting held at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.
- Katzmann, J. M., Seville, R. S. (2011). *INBRE-active biomedical research in Wyoming*. Interactive presentation at the Wyoming Math and Science Teacher's Conference, Casper Wyoming.

- Jensen, L., Dambekalns, L., and Katzmann, J. M. (2009). Enhancing online learning: Elluminate live. Interactive presentation at the Wyoming Distance Education Consortia Conference, Casper Wyoming.
- Katzmann, J. M., Kreps, J., Darnell, J., and Saunders, G. (2004). Water curriculum and poster for the Colorado Foundation for Water Education. Colorado Association of Science Teachers annual conference, Denver Colorado.

#### Local Presentations, Workshop Sessions, and Posters

- Katzmann, J. M. (2015). *Utilizing the 5E instructional model in the college classroom*. Presented at the UWC Learning Community Leadership Committee faculty workshop.
- Katzmann, J. M. (2011). Increasing secondary science preservice teacher self-efficacy and Pedagogical content knowledge: A place-based approach. Presented at the UWC Research Symposium, Casper Wyoming.
- Katzmann, J. M., Jacobs, K. (2011). Transfer between math and science. Presentation for EDCI 5510: Principles and Methods for Integrated Approaches to Teaching and Learning Mathematics and Science, University of Wyoming, Laramie Wyoming.
- Katzmann, J. M. (2011). Research on the mountain: An overview of Casper Mountain Science School and the potential it holds for education, research, and outreach. Presented at the first UWC Research Symposium, Casper Wyoming.
- Katzmann, J. M. (2010). Advanced inquiry institute. Natrona County School District professional development, Casper Wyoming.
- Katzmann, J.M. (2009). *Inquiry institute*. Natrona County School District professional development, Casper Wyoming.
- Katzmann, J. M. (2009). Implementation, refurbishment, distribution, professional development, and assessment of elementary kit-based science programs in Harrison School District #2 of Colorado. Natrona County School District, Casper Wyoming.
- Katzmann, J. M. (2008). *The influences of implementing state-mandated science assessment on teacher practice*. University of Wyoming at Casper College brown bag lunch research presentation.
- Katzmann, J.M. (2006). Utilizing data-driven conversations within a professional learning community: How to use Examview software and Edusoft to make it happen. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2006). *Utilizing Outlook in our professional lives*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2006). What is a professional learning community and how does it work in high school biology. Harrison School District #2 professional development, Colorado Springs Colorado.

- Katzmann, J.M. (2006). Harrison School District #2 science safety: chemical hygiene, triage, and recycling plan. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2006). *Six, seventh, and eighth grade science curriculum mapping*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M., Buchanan, M.S. (2006). Tobacco cessation and prevention: What are the possibilities in curriculum? Harrison School District #2 Tobacco Cessation Committee, Colorado Springs Colorado.
- Katzmann, J.M., Chittenden, D. (2005). *K-12 science curriculum alignment*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2005). Secondary science safety concerns. Harrison School District #2 principal's information meeting, Colorado Springs Colorado.
- Katzmann, J.M. (2005). Utilizing Vernier lab pro probes and software: Bringing technology into the middle school science classroom. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2005). *High school biology and physical/earth science curriculum mapping*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2005). *New teacher institute for middle school science*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2004). Using discrepant events to introduce inquiry in middle school science. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M., Chittenden, D. (2004). *K-12 science curriculum alignment*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2004). *New teacher institute for middle school science*. Harrison School District #2 professional development, Colorado Springs Colorado.
- Katzmann, J.M. (2003). *New teacher institute for middle school science*. Harrison School District #2 professional development, Colorado Springs Colorado.

## **GRANT ACTIVITY**

#### Funded

- 2022 Co-Principle investigator, Internal Grant through the University of Wyoming's College of Education (\$12,000). *Master Teacher as a Collaborator (MTC) Competency Development*.
- 2018 Principle investigator, Wyoming Department of Education Math and Science Partnership grant (\$223,209). Utilizing Place Pedagogies to Engage Real-world Watershed Investigations (UPPER WInd III).

- 2016 Principle investigator, Wyoming Department of Education Math and Science Partnership grant (\$238,201). Utilizing Place Pedagogies to Engage Real-world Watershed Investigations (UPPER WInd II).
- 2016 Co-Principle investigator, Board of Cooperative Educational Services, Natrona County Wyoming (\$15,000). *Natrona County School District STEM Field Trip Program*.
- 2015 Principle investigator, Wyoming Department of Education Math and Science Partnership grant (\$226,864). Utilizing Place Pedagogies to Engage Real-world Watershed Investigations (UPPER WInd).
- 2014 Principle investigator, Wyoming NASA Space Consortium Grant (\$1000.00). Veni Vidi Duci Blue and Green.
- 2014 Principle investigator, Central Wyoming Board of Cooperative Educational Services Grant (\$8,600). *First Lego League World Festival and North American Championships*.
- 2013 Principle investigator, Wyoming NASA Space Consortium Grant (\$500.00). Veni Vidi Duci Green
- 2013 Principle investigator, Central Wyoming Board of Cooperative Educational Service (\$8,400). *Veni Vidi Duci – Green.*
- 2011 Principle investigator, Wyoming NASA Space Consortium Grant (\$500.00). Veni Vidi Duci and the Young Scientists Lego Robotics
- 2009 Co-principle investigator, Natrona County Board of Cooperative Educational Services (\$247,380), *Partnering to Improve Science Education* 2009 2011
- 2009 Co-principle investigator, Natrona County Board of Cooperative Education Services (\$13,000), Audubon Travel Trunks – Taking the Audubon Center into the Classroom
- 2005 Co-principal investigator, Intel Corp. (\$19,000), *Harrison School District #2 Middle School Science Fairs*
- 2005 Co-writer, Colorado Department of Education Math and Science Partnership (\$500,000), *PPRISM*

2000 Principal investigator, Colorado Division of Wildlife (\$5000/year), Springs Youth Naturally 1996 -

#### 2000 Not Funded

- 2016 Co-principal investigator, National Science Foundation Research Traineeship (NRT) Program: Innovations in Graduate Education (IGE) Track (\$500,000). *More Than Just a Scientist*.
- 2015 Co-principal investigator, National Science Foundation Discovery Research K-12 grant (\$3,000,000). Collaboratively Enhancing Rural Teacher Augmented Involvement in Science Technology Engineering Math (CERTAIN STEM).

- 2014 Co-principal investigator, National Science Foundation Discovery Research K-12 grant (\$3,000,000). Collaboratively Enhancing Rural Teacher Augmented Involvement in Science Technology Engineering Math (CERTAIN STEM).
- 2014 Principal investigator, National Science Foundation Robert Noyce Scholarship Grant Phase I (\$1,446,000). *Science Teacher Education using the Mountain of Wyoming (STEM-Wyo)*.
- 2013 Co principal investigator, Wyoming Department of Education's Math and Science Partnership (\$175,822), *STEM Driven Instruction*
- 2013 Co-principal investigator, National Science Foundation's Robert Noyce Capacity grant (\$250,000), Enhancing Science Teacher Capacity (ESTC) Through Wyoming's Ecology
- 2011 Co-principal investigator, Wyoming Department of Education's Math and Science Partnership (\$218,108), *STEM Integrated Instruction: Linking Math, Science, and Technical Education.*

#### **PROFESSIONAL AFFILIATIONS**

ASTE	Association for Science Teacher Education
NARST	National Association of Research in Science Teaching
WSTA	Wyoming Association of Math and Science Teachers
CAST	Colorado Association of Science Teachers
NSTA	National Science Teachers Association
SCST	Society for College Science Teaching
NABT	National Association of Biology Teachers
NAAEE	North American Association for Environmental Education

### SERVICE

### National/International

- Participant Project WET (Water Education for Teachers) conference workshops in Spokane Washington, August 2022.
- Participant Project WET (Water Education for Teachers) online conference workshops, August 2021.
- Participant Project WET (Water Education for Teachers) and Project Wild, joint online conference workshops, July 2020.
- *Member* Project WET (Water Education for Teachers), online workshop development in response to Covid-19, June 2020.
- Member Project WET (Water Education for Teachers), research committee, 2017 to present.

Manuscript Reviewer - Action in Teacher Education journal, 2019

- Conference Proceedings Reviewer North American Association for Environmental Education 2017 and 2018.
- Member Environmental Education Forum for the Association of Science Teacher Education, 2011 to Present.
- Manuscript Reviewer Action in Teacher Education journal, fall 2013.

### State/Regional/Local

- *Reviewer* Wyoming Committee for Presidential Awards for Excellence in Mathematics and Science Teaching. Spring 2022
- Judge First Tech Challenge state championships in Casper Wyoming, Spring 2022.
- Coordinator Natrona County 4<sup>th</sup> Grade day for science and math at UW-Casper and Casper College, Spring 2022.
- Reviewer Wyoming Committee for Presidential Awards for Excellence in Mathematics and Science Teaching. Fall 2021
- Participant Colorado Science Teacher Virtual Conference, Denver Colorado, November 2021.
- Participant IDEA Network for Biomedical Research Excellence (WY-INBRE) state Conference, Virtually over Zoom September 2021.
- Presenter Wyoming FIRST Lego League new coaches clinic, Casper Wyoming, July 2020.
- *Coordinator* Natrona County 4<sup>th</sup> Grade day for science and math at UW-Casper and Casper College, Fall 2019 and Spring 2020 (spring was cancelled due to Covid-19).
- Participant Colorado Association of Science Teacher Conference, Denver Colorado, November 2019.
- Participant IDEA Network for Biomedical Research Excellence (WY-INBRE) Western Regional Conference, Las Vegas Nevada, September 2019.
- Participant Project WET national conference for state coordinators, Tucson Arizona, September 2019.
- Course Marshall National Interscholastic Cycling Association (NICA), high school mountain bike races fall 2019.
- State Coordinator Project WET (Water Education for Teachers), international research committee 2017 to present.
- Coach FIRST Lego League Robotics home school teams Veni Vidi Duci Green and Blue. Won state Championships in 2012, 2013, 2015 and 2021, competed in North American Open Championships in 2013, competed in North American Open Championships in 2014 and World Festival in 2014 and 2016. Invited to North American Championships in 2020 and World Festival in 2022, cancelled due to Covid-19. Fall 2010 to present

- Participant Professional development for state facilitators of Project WET, Wild and Learning Tree in Dubois Wyoming, August 2019
- Reviewer Wyoming Committee for Presidential Awards for Excellence in Mathematics and Science Teaching. Spring 2019
- Participant Wy-TOPP Science PLD Committee, March 2019
- Moderator Wyoming State Science Bowl championships held in Casper Wyoming, February 2019
- Reviewer Wyoming Committee for Presidential Awards for Excellence in Mathematics and Science Teaching. Spring 2018
- Judge Science Fair at Verda James Elementary School in Casper Wyoming, January 2018.
- *Volunteer* Science Olympiad, developed, proctored and scored science as inquiry events for the Wyoming Science Olympiad. March 2018
- *Volunteer* Science Olympiad, developed, proctored and scored science as inquiry events for the Wyoming Science Olympiad. March 2017
- Member Advisory board for the Werner Wildlife Museum at Casper College, spring 2011 to spring 2017
- Member University of Wyoming and Casper College 2X2 initiative in biology and biology education, spring 2016
- *Volunteer* Science Olympiad, developed, proctored and scored science as inquiry events for the Wyoming Science Olympiad. March 2016
- *Volunteer* Science Olympiad, developed, proctored and scored science as inquiry events for the Wyoming Science Olympiad. March 2015
- *Volunteer* Science Olympiad, developed, proctored and scored science as inquiry events for the Wyoming Science Olympiad. March 2014
- Co-Facilitator –NGSS Curriculum Development and Implementation in Wheatland Wyoming Spring 2014
- Judge Sagewood Elementary School Science Fair, January 2014
- Judge Poison Spider Science Fair, January 2014
- Guest Instructor Advanced Instructional Strategies at the Teton Science School Kelly Campus December 2013
- *Volunteer* Science Olympiad, developed, proctored and scored cell biology and lab processes events for the Wyoming Science Olympiad. March 2013

Judge - Natrona County and Central Regional Science Fair, February 2013

- Facilitator Science Curriculum Articulation and alignment to Frameworks for Science Literacy in Hotsprings School District Thermopolis Wyoming, January 2013
- Master of Ceremonies Third Annual Wyoming Alliance for Adoption and Foster Care Conference in Casper Wyoming on November 10, 2012
- Facilitator Science Curriculum Articulation and alignment to Frameworks for Science Literacy in Hotsprings School District Thermopolis Wyoming, October 2012
- Field Marshall Casper Blades soccer tournament, September 8, 2012
- Coach Casper Youth Baseball 3A division, April 2012 July 2012
- Facilitator Project Wet, Project Wild, and Project Learning Tree professional development for Wyoming teachers in May 2012
- Presenter Static electricity show for fourth grade students at Sagewood Elementary School in Natrona County School District #1, April 2012.
- *Volunteer* Science Olympiad, developed, proctored and scored lab processes events for middle and high school levels at the Wyoming Science Olympiad, March 2012
- Judge Wyoming First Technology Challenge Robotics Competition at Casper College, March 2012
- Chaperone Casper Mountain Science School during home school week, March 2012
- Judge Natrona County and Central Regional Science Fair, February 2012
- Judge Natrona County and Central Regional Science Fair. February 2011
- *Facilitator* Project Wet, Project Wild, and Project Learning Tree professional development for Wyoming teachers in November 2011.
- Facilitator professional development in Natrona County School District regarding advanced inquiry science for 30 teachers. June 2010
- *Volunteer* Science Olympiad, developed, proctored and scored cell biology and lab processes events for the Wyoming Science Olympiad. Winter 2010
- Judge Central Wyoming Regional Science Fair. Winter 2010
- Reviewer Wyoming Committee for Presidential Awards for Excellence in Mathematics and Science Teaching. Spring 2010
- Member Advisory Board for the Casper Mountain Science School in which we developed a strategic plan, business plan and conducted a feasibility study. This spring we will hold our 3<sup>rd</sup> week long residency program for 8<sup>th</sup> grade students on Casper Mountain and will begin the fulltime residency program in the fall of 2011. Fall 2008 to present

- Advisor for the student group Baptist Collegiate Ministries, a recognized student organization at Casper College, beginning Fall 2009 to present
- Facilitator professional development in Natrona County School District regarding inquiry science for 120 teachers, June 2009
- Coordinator assessment of progress for 18 home school students from 12 Casper Home School Coop families utilizing the California Achievement Test, June 2009
- Judge Wyoming FIRST Lego League Challenge in Casper Wyoming December 2008
- Evaluator Wyoming Department of Education's 21st Century Community Leaning Center Grants in Fall 2008
- Consultant Natrona County School District's transition to a kit-based science program in Fall 2008 to present
- Evaluator Casper Mountain Science School's pilot program in May 2008
- Surveyor administered a faculty survey for UWC to determine technology and training needs in Spring 2008
- Judge Science fair for Crest Hill Elementary School's science fair within Natrona County School District in January 2008
- *Validator* on behalf of the Wyoming Professional Teaching Standards Board in the Standards Setting Study Panel for the Chemistry and Biology PRAXIS II exams determining validity of exam questions as well as the cut score for passing the exam December 2007
- *Contributor* on committee for the Colorado Department of Education, in the overview group, to complete the revisions of the complete K-12 Colorado Model Content Standards in Science October through December 2006
- *Reviewer* on committee for the Colorado Department of Education in the revision of the state K-12 Life Science Standards October 2006
- *Mentor* Colorado e-Mentoring for Student Success (eMSS) training June 2006 to mentor new science teachers in Colorado via a WebCT interface during the 2006 2007 school year
- Participant in the tenth grade science Content Review for CSAP Development via the Colorado Department of Education June 2006
- *Participant* in the Colorado Student Assessment Program (CSAP) Content validity and Alignment Study via the Colorado Department of Education in Science May 2006

### University

Participant – Wyoming IDEA Network for Biomedical Research Excellence (WY-INBRE), spring conference, 2022.

- Participant Wyoming IDEA Network for Biomedical Research Excellence (WY-INBRE), virtual fall retreat, 2021.
- Member Search Committee department of Zoology for new faculty position at UW-Casper, Spring 2020.

*Presenter* – College of Education and Natrona County School District residency mentor/mentee fall meeting, November 2019.

- Participant Wyoming IDEA Network for Biomedical Research Excellence (WY-INBRE), fall retreat, 2019.
- Assessment Coordinator IDEA Network for Biomedical Research Excellence (WY-INBRE), 2018 to present.
- CoChair University of Wyoming at Casper's, Scholarship Committee, January 2013 to present.
- Member UWC New Building Planning Committee, fall 2012 to 2014
- Advisor National Association of Science Teachers student chapter (NSTA UW & CC), spring 2011 to present
- Advisor -Collegiate Ministries (CM UW & CC), spring 2009 to present
- Member University of Wyoming University Studies Program Committee. This committee is responsible for assuring that courses across the University meet and/or exceed University Studies outcomes. Fall 2010 to Spring 2016
- Subcommittee chair the University of Wyoming University Studies Program Committee of Writing I, Writing II and Writing III. Fall 2011 to 2013
- *Member* Search Committee for new faculty member in the department of Communications and Journalism, Fall 2011 Spring 2012
- Subcommittee chair University of Wyoming University Studies Program Committee of Natural Science and Mathematics. 2010 to 2011
- Member Advisory Board for the Science and Math Teaching Center at the University of Wyoming. Fall 2010 to Spring 2016
- Trainer for UWC faculty regarding technology in the classroom. 2009 2010
- *K-12 coordinator* National Center for Research Resources a component of National Institutes of Health, *IDeA Network of Biomedical Research Excellence (INBRE)*. June 2009 to 2013
- *Facilitator* informal trainings on using Elluminate as a distance discussion/presentation tool for UWC faculty, Spring 2009

- Member University of Wyoming at Casper College Center's Library Committee beginning in fall 2008 to spring 2011
- Member University of Wyoming at Casper College Center's Learning Community Leadership Committee beginning in Fall 2008 to present
- *Member* technology committee for the College of Education at the University of Wyoming beginning Fall 2007 to 2009
- Affiliate faculty member Math Science Teaching Center at the University of Wyoming, Fall 2007 to present
- Member technology subcommittee for University of Wyoming at Casper beginning Fall 2007 to present

#### **College and Department**

- Member Course creation of EDEL 3724, Elementary Science Methods, Spring 2020.
- Member Course creation committee of EDST 3100 and 3101, Teacher as Practitioner and Practicum, Spring 2020.
- Member Search committee for Counselor Education Faculty position at UW-Casper, 2018-2019
- Chair Search committee for Humanities Methods Academic Professional Lecturer position at UW-Casper, fall 2017 – spring 2018
- Participant School of Teacher Education's Curriculum Review, January 2018
- Member Advisory Council on Teacher Education (ACTE) in the College of Education at the University of Wyoming Fall 2016 to present
- Facilitator Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in October 2016
- Coordinator Advanced Instructional Strategies Course in Curriculum and Instruction Graduate Program in the College of Education at the University of Wyoming fall 2015 to present
- *Collaborator/Writer* NCATE/NSTA accreditation of the Secondary Science Education Program in the College of Education at the University of Wyoming in Spring 2014 to fall 2015
- Facilitator Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in October 2015
- *Facilitator* Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in September 2014
- Facilitator edTPA upload support for k-12 preservice teachers in Natrona County School District residency, April 2014

- Facilitator edTPA upload support for k-12 preservice teachers in Laramie County School District residency, April 2014
- *Facilitator* Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in March 2014
- Facilitator PLACE, Dr. Kate Welsh's MSP grant, professional development, October 2013
- Facilitator Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in September 2013
- Facilitator Flooding the Field with Place-Based Learning, Dr. Jennifer Forrester's MSP grant, professional development, July 2013
- Facilitator PLACE, Dr. Kate Welsh's MSP grant, professional development, July 2013
- Facilitator PLACE, Dr. Kate Welsh's MSP grant, professional development, April 2013
- Facilitator Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in April 2013
- Member edTPA/Livetext Taskforce, Fall 2012 to present
- *Trainer* Livetext training for preservice students and faculty at UWC held at the UW Outreach Building on October 19, 2012
- Facilitator PLACE, Dr. Kate Welsh's MSP grant, professional development, October 2012
- *Trainer* UWC faulty Livetext training session, September 21, 2012
- Facilitator Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in September 2012
- Facilitator PLACE, Dr. Kate Welsh's MSP grant, professional development, July 2012
- Evaluator PLACE, Dr. Kate Welsh's MSP grant, professional development, April 2012
- *Facilitator* Project Growing Up Wild and Project Learning Tree Early Childhood professional development for UWC preservice elementary teachers in March 2012
- Facilitator Project Wet professional development for Dr. Kate Welsh's MSP grant, PLACE, October 2011
- Facilitator Secondary educations mentor/mentee workshop for Natrona County School District, November 2011
- Facilitator PLACE, Dr. Kate Welsh's MSP grant, professional development, August 2011

Member - College of Education Science Education PhD program committee, fall 2010 to present

- Sought out and assisted my secondary science education students in obtaining extramural funding of \$1500 to attend the AdvanED conference in Cheyenne Wyoming fall 2011 and the Colorado Association of Science Teacher Conference in Denver Colorado Fall 2011
- Writer the Secondary Science Education Program's Add-On Endorsements for concurrent majors in the secondary science education program. The add-on endorsements were approved by the WY PTSB in October 2010
- *Collaborator/Writer* NCATE/NSTA accreditation of the Secondary Science Education Program in the College of Education at the University of Wyoming in Spring 2008 to 2010

*Member* – University of Wyoming Department of Secondary Education's Recruiting Committee Fall 2009

- *Affiliate member* UW Cognition in Astronomy, Physics & Earth sciences Research (CAPER) team for developing PhD program in Science Education, beginning fall 2009
- Sought out and assisted my secondary science education students in obtaining extramural funding of \$1000 to attend the National Association of Biology Teacher's regional conference in Denver Colorado November 2009
- Sought out and assisted my secondary science education students in obtaining extramural funding in excess of \$2000 to attend the National Science Teacher Associations regional conference in Denver Colorado November 2007
- *Guest lecturer* EDSE 1000 on Laramie campus regarding the topic of high-stakes testing and its impact on secondary teacher practice October 2007

Graduate Advisees	Admitted	Graduated	Thesis Title
Michael Bauer	Summer 2019		In Progress (MA)
Brett Thielbar	Fall 2017		In Progress (ESCI – PhD)
Rod Thompson	Fall 2018		ABD (C&I – EDD)
Jeff Morris	Summer 2017		In Progress (C&I - EDD)
Marjorie Anderson	Fall 2016	Spring 2021	Creating a Student Support Course in Casper College's Moodle Learning Management System
Leona Wunnenberg	Fall 2014	Fall 2020	STEMing the Gap
Charles Vogelheim	Fall 2014	Fall 2015	Service, Science, and Standards: Using Restoration Service-Learning to Meet Science Standards
Kim Mapp	Fall 2014	Spring 2015	Science and Ecological Literacy in Undergraduate Field Studies Education

## **GRADUATE ADVISING**

Heather Beebout	Fall 2013	Summer 2015	Going Paperless: Implementing A Paperless Classroom Using Google Apps
Katherine Kruse	Spring 2013	Summer 2014	Changing From Traditional To StandardBased Grading
Jeremiah Attebury	Summer 2010	Spring 2014	The Current State of Career and Technical Education in the United States and Wyoming
Devon Trainer	Summer 2012	Spring 2014	Basic Psychological Need Fulfillment Through Adventure Education
Katherine Kruse	Fall 2012	Spring 2014	Changing From Traditional to StandardsBased Grading
Nick Hamar	Summer 2011	Spring 2013	Motion Unit
Kristen Hamar	Summer 2011	Spring 2013	Attention Deficit Hyperactivity Disorder: Pharmaceutical and Non-Pharmaceutical Treatment
Kathleen Hansen	Summer 2008	Fall 2011	Energy and Ecology: A Place-Based Middle School Science Curriculum
Michelle Wistisen		Fall 2008	Gestalt and Student Understanding of the Phases of the Moon
<b>Graduate (Master's)</b> <i>Committees</i>	Graduated	Thesis Title	
Bethan Crowe	In Progress		
Austin Gager	In Progress		
T.J. Brown	Spring 2014	Science Math Teacher Center Masters of Science in Teaching	
Caroline Hickerson	Fall 2012	Science Writing Heuristics Effects on Students' Understanding of the Nature of Science	
Lindsey Maritz	Spring 2012	Climate Change Curriculum Development	
Rebecca Favinger	Fall 2011	Organization Using a Science Notebook and Journal	
Charity Penn	Fall 2011	Traditional Vs. Virtual Dissections	
Jessica Vierk	Fall 2011	<b>Explicit Reading Instruction in Science Class: An Action Research Project</b>	
Brianna Carroll	Spring 2009	Team Building as an Instructional Strategy to Improve Student Learning in a High School Mathematics Classroom	
<b>Graduate (PhD)</b> <i>Committees</i>		Program	
Johannes Addido	In Progress	Science Educat	tion PhD Program
Ken Brandt	In Progress	Science Educat	tion PhD Program
Sara Scultz	In Progress	Science Educat	tion PhD Program
Keith Turner	In Progress		tion PhD Program
Jana Penders	In Progress	Science Educat	tion PhD Program
<b>Rick Sanchez</b>	In Progress	Science Educat	tion PhD Program
ShiAnne Katner	Fall 2017	Establishing a Relationship Between Students' Spatial Ability and Astronomy Pedagogy	

Katie Guffey	Spring 2017	Development of the Exam of GeoloGY Standards, EGGS, to Measure Students' Conceptual Understanding of Geology Concepts
Aaron Jensen	Spring 2014	The Impact of Professional Development on Classroom Teaching for Science Educators Participating in a Long Term Community of Practice
Tanzeem Ali	Spring 2012	Comparative Urban Bangladesh Physics Learning Experience as Described by Students and Alumni

## LICENSES AND CERTIFICATIONS:

Professional Teacher License, State of Colorado Endorsement: Secondary Science, Exp. 2023

Provisional Teacher License, State of Texas Endorsement: Secondary Science Composite, Lifetime