**FACULTY CURRICULUM VITAE**

**Meghann Jarchow**

Department of Biology and Sustainability Program

Assistant Professor and Sustainability Program Coordinator

**EDUCATION**

Institution Area of Specialization Degree Year Earned

Iowa State University Sustainable agriculture & ecology Ph.D. 2012

Minnesota State University, Mankato Biology M.S. 2005

Ripon College Biology B.A. 2002

**PREVIOUS PROFESSIONAL EXPERIENCE**

Institution Position/Title Dates

University of South Dakota Sustainability Program Coordinator 2012-present

University of South Dakota Assistant Professor 2012-present

Iowa State University Graduate Research Assistant 2007-2012

Gustavus Adolphus College Biology Instructor & Laboratory Coordinator 2005-2007

Minnesota State University, Mankato Adjunct Biology Instructor 2006

Minnesota State University, Mankato Graduate Teaching Assistant 2003-2005

**I. SPECIAL HONORS OR RECOGNITIONS**

2017 Belbas-Larson Teaching Award nominee, University of South Dakota

2016 Blair and Linda Tremere Faculty Service Award recipient, University of South Dakota

2016 Belbas-Larson Teaching Award nominee, University of South Dakota

2013 Environmental Protection Agency Scientific and Technological Achievement Award honorable mention

2010 Environmental Protection Agency STAR Fellowship

2007 Department of Agronomy Research Training Fellowship, Iowa State University

2007 Plant Sciences Institute Fellowship, Iowa State University

**II. TEACHING AND ADVISING**

**A. Courses Taught**

**A1. General Course Schedule**

SUST 201 Sustainability and Society Every fall semester

SUST 203 Sustainability and Science Every spring semester

SUST 489 Sustainability Capstone Every spring semester

SUST 494 Internship Every term

SUST 496 Field Experience Every term

SUST 498 Undergraduate Research Every term

SUST 491, 591, 791 Independent Study As needed

BIOL 798, 898 Thesis/Dissertation Research As needed

**B. Grants or Applications for Grants to Support Teaching and Advising**

**B1. Funded Pedagogy Grants**

Total with Jarchow as the PI or Co-PI = $124,991

Total with Jarchow as Supporting Faculty = $1,000,000

Burrell, B. (Principal), Jarchow, M. (Supporting), Grant, "South Dakota Needs Scientists", Howard Hughes Medical Institute, Private, $1,000,000, Funded, October 2017 – September 2022.

Jarchow, M. (Principal), Grant, "Earth Days Keynote Lecture - Dr. Sandra Steingraber", Ceres Trust, Private, $7,500. Funded, September 2016 – May 2017.

Jarchow, M. (Principal), Grant, "Community-based Learning Mini-grant", Center for Academic and Global Engagement, The University of South Dakota, $500. Funded, September 2016 – December 2016.

Jarchow, M. (Principal), Grant, "Teaching & Learning Grant", Center for Teaching and Learning, The University of South Dakota, $750. Funded, September 2016 – December 2016.

Jarchow, M. (Co-Principal), Sweeney, M. (Co-Principal), Grant, "Sustainable Rivers: Integrating Earth Science & Sustainability Across the Curriculum", National Science Foundation, Federal, $43,620. Funded, May 2015 – November 2016.

Jarchow, M. (Co-Principal), Ritter, J. (Co-Principal), Barbanell, E. (Co-Principal), Contract, "An ecosystem services approach to water resource conservation", National Science Foundation through the Science Education Resource Center, Federal, $45,000. Funded, November 2014 – June 2016.

Jarchow, M. (Principal), Grant, "Sustainability & Society Community-Based Learning mini-grant", Center for Academic and Global Engagement, The University of South Dakota, $500. Funded, September 2015 – December 7, 2015.

Jarchow, M. (Principal), Grant, "Travel Grant", Center for Teaching and Learning, The University of South Dakota, $750. Funded, October 2015 – November 2015.

Jarchow, M. (Principal), Grant, "Center for Teaching and Learning Teaching Improvement Grant", Center for Teaching and Learning, The University of South Dakota, $750. Funded, October 2014 – December 2014.

Jarchow, M. (Principal), Grant, "Center for Teaching and Learning Course Redesign Fellowship", Center for Teaching and Learning, The University of South Dakota, $1,250. Funded, May 2014 – December 2014.

Jarchow, M. (Principal), Grant, "Sustainability & Society Community-Based Learning mini-grant", Center for Academic and Global Engagement, The University of South Dakota, $500. Funded, October 2014 – December 2014.

Jarchow, M. (Principal), Grant, "Gender, Species, and Climate Change", South Dakota Humanities Council, State, $1,000. Funded, November 2014 – December 2014.

Jarchow, M. (Principal), Grant, "Frances Moore Lappe at USD", South Dakota Humanities Council, State, $1,000. Funded, April 2014 – September 2014.

Jarchow, M. (Co-Principal), Hover, C. (Co-Principal), Grant, "Games for Improved Learning in STE(A)M: Sustainability & Science", Office of Research and Sponsored Programs, The University of South Dakota, $19,871. Funded, October 2012 – August 2014.

Jarchow, M. (Principal), Grant, "College of Arts & Sciences Curriculum Transformation Grant", College of Arts & Sciences, The University of South Dakota, $1,000. Funded, May 2014 – August 2014.

Jarchow, M. (Principal), Grant, "Frances Moore Lappe's Living Democracy to Enhance Civic Education in Vermillion", Allene R. Chiesman Fund for Civic Education, The University of South Dakota, $2,000. Funded, April 2014 – June 10, 2014.

**B2. Pedagogy Grants in Review**

Total with Jarchow as Supporting Faculty = $1,023,657

Nordyke, S. (Principal), Jarchow, M. (Supporting), Grant, "University of South Dakota McNair Scholars Program”, Department of Education, Federal, $1,023,657. In Review.

**C. Graduate Student Mentoring**

**C1. Doctoral and Masters Students Directed**

Morgan Carnes, M.A. Interdisciplinary Studies, 2017-present

Eva Soluk, M.S. Biology, 2015-present

Nathan Bedoya, M.A. Interdisciplinary Studies, 2015-present

Adam Warrix, Ph.D. Biology, 2016-2017 (left USD)

Abigail Davis, M.S. Biology, 2013-2016

Alice Millikin, M.S. Biology, 2012-2014

**C2. Graduate Student Committees**

Gretchen Newberry, Ph.D. Biology, 2014-present

Drew Davis, Ph.D. Biology, 2013-present

Balaranjan Selvaratnam, M.S. Chemistry, 2017-present

Joshua Loebs, M.S. Biology, 2016-present

Lauren Hennings, M.S. Biology, 2015-present

Heng Wu, M.A. Interdisciplinary Studies, 2016-2017

Rebekah Jessen, M.S. Biology, 2015-2016

Jerry Warmbold, M.S. Biology, 2014-2016

Victoria Danzeisen, M.S. Biology, 2013-2016

Christopher Boever, M.S. Biology, 2013-2016

Alex Cahlander-Mooers, M.S. Biology, 2013-2015

James Robertson, M.S. Biology, 2013-2015

David Harden, M.A. Interdisciplinary Studies, 2012-2013

**D. Non-classroom Teaching**

**D1. Honors Thesis Committees**

**(\* indicates chair of committee, + indicated U Discover Summer Scholars Fellowship recipient)**

Stephen Bakke, B.S. Economics, 2016-present

Theresa Barnes, B.S. Biology, 2015-present

Alexa Kruse\*+, B.S. Sustainability and Biology, 2015-present

Eric Fogarty, B.S. Biology, 2015-2016

Emily Roberson\*+, B.A. Sustainability and Anthropology, 2014-2016

Sarah Kuegle, B.A. History, 2014-2016

Elena Tsakakis\*+, B.S. Biology, 2014-2016

Jordan Foye, B.S. Earth Science, 2012-2013

**D2. Independent Undergraduate Research Mentored**

**(\* indicates U Discover Summer Scholars Fellowship recipient)**

Tanner Hall, B.S. Sustainability, 2017-present

Marguerite Squyer\*, B.S. Sustainability and Biology, 2016-present

Erin Wetzstein, B.S. Sustainability and Biology, 2016-present

Jasmine Kearney, B.S. Biology, 2016-2017

Nathan Bedoya, B.S. Sustainability, YEAR

Sydney Hancock, B.S. Sustainability and Biology, 2012-2015

Don Poeckes, B.S. Sustainability and Biology, 2014-2016

Ashley McKeown\*, B.A. International Studies and Political Science, 2014-2015

Erica Kuharski\*, B.S. Biology, 2014

Eva Soluk\*, B.S. Biology, 2013-2014

Cole Heisey, B.A. Philosophy, 2012-2014

**D3. Technology Fellows Mentored (through the Sustainability Program)**

Dusan Mirkovic, B.S. Medical Biology, 2016-present

Katherine Bollinger, B.S. Biology, 2017

Kayla Johnston, B.S. Psychology, 2016

Shelby Huber, B.S. Media and Journalism, 2013-2015

**D4. National Science Foundation Research Experiences for Undergraduates (NSF REU) Student Mentored (\*indicates students where Jarchow was the overall mentor and faculty mentor)**

Aleisa LaBelle\*, Nebraska Indian Community College, 2017

Shelley Kosola\*, Nebraska Indian Community College, 2017

Kriston Lynn, University of South Dakota, 2017

Rebecca Krasky, Macalester College, 2017

Ethan Jennings, University of South Dakota, 2017

Tyler Seidel, University of South Dakota, 2017

Selena Olvera, University of South Dakota, 2017

Shaylyn Austin, University of Michigan, 2017

Bethany Vazquez Maestas, University of Puerto Rico, 2017

Geoffrey Gray-Lobe, Augustana College, 2017

Sebastian Ruiz, Florida International University, 2017

**D3. Post-Undergraduate Student Mentored**

Alison Bowers, Hanson School District, 2017

Pauline Vicaire, Ecole Nationale Superieure Agronomique de Toulouse, 2016

**E. Development of Teaching Strategies, Assessments, and Methods**

Jarchow has been active in developing and utilizing evidence-supported pedagogical methods and improving and assessing the Sustainability Program curriculum. See Section II Part B for grants focused on pedagogy and curriculum design.

**E1. Teaching Strategies Utilized in SUST 201, 203, and 489**

Critical pedagogy of place (place-based learning plus critical pedagogy)

Team-based learning

Community-based learning

Backward (course) design

Inclusive excellence

Systems thinking

Engaging the whole student

**E2. Teaching Workshops Attended**

2015 Earth Science and Sustainability Across the Curriculum (1-day workshop)

2014 InTeGrate Module Development Workshop (2 ½-day workshop)

2014 Center for Teaching and Learning Course Design/Redesign Fellowship (5-day workshop)

2014 College of Arts and Sciences Curriculum Transformation Grant (½-day training)

2013 Association for the Advancement of Sustainability in Higher Education Sustainability Across the Curriculum Workshop (2-day workshop)

**E3. External Teaching Evaluations**

2016 In-class observation and evaluation from Dori Farthing from the Science Education Research Center Classroom Observation Project

2015 In-class observation and evaluation from John Dudley, Associate Dean of Academics in the College of Arts and Sciences

2013 In-class observation and evaluation from Bruce Kelley, Director of the Center for Teaching and Learning

2013 In-class observation and evaluation from Barbara Goodman, Professor in the Division of Basic Biomedical Sciences

**III. RESEARCH/CREATIVE ACTIVITY**

**A. Research Publications**

As of August 2017, Jarchow’s research has been cited 279 times with an h-index of 10 on Google Scholar. Jarchow’s research has had 1,597 publication reads and has a RG score of 21.76 on ResearchGate.

For subsequent citations, \* indicated graduate student author mentored by Jarchow and

\*\* indicates undergraduate student author mentored by Jarchow

**A1. Peer Reviewed Publications Accepted (not yet published) (n = 2)**

Stoy, P., Ahmed, S., Jarchow, M., Rashford, B., Swanson, D., Albeke, S., Bromley, G., Brookshire, J., Dixon, M., Haggerty, J., Miller, P., Peyton, B., Royem, A., Sohl, T., Spangler, L., Straub, C., Poulter, B. Opportunities and tradeoffs between BECCS and food, water, energy, biodiversity, and social systems at regional scales. *BioScience*.

Jarchow, M., Formisano, P., Nordyke, S., Sayre, M. Measuring Longitudinal Student Performance on Student Learning Outcomes in Sustainability Education. *International Journal of Sustainability in Higher Education*.

**A2. Peer Reviewed Publications Published (since beginning at USD) (n = 10)**

Soluk, E. L.\*\*, Jarchow, M., Carlisle, J. (2016). Declines in prairie bird populations following tallgrass prairie restoration. *South Dakota Bird Notes* 68(4): 85-93.

Barbanell, E., Jarchow, M., Ritter, J. (2016). In David Gosselin (Ed.), *An ecosystem services approach to water resources*. InTeGrate's Earth-focused Modules and Courses Peer Reviewed Collection. serc.carleton.edu/integrate/teaching\_materials/ecosystem\_water/index.html.

Millikin, A. R.\*, Jarchow, M., Olmstead, K. L., Krentz, R. E., Dixon, M. (2016). Site preparation drives long-term plant community dynamics in restored tallgrass prairie: A case study in southeastern South Dakota. *Environmental Management* 58(4): 597-605.

Jarchow, M. (2016). Using systems thinking to assess environmental justice issues. In Loren Byrne (Ed.), *Learner-centered Teaching Activities for Environmental and Sustainability Studies*. Springer International Publishing, pp. 215-220.

Dietzel, R., Liebman, M., Ewing, R., Helmers, M., Horton, R., Jarchow, M., Archontoulis, S. (2016). How efficiently do corn- and soybean-based cropping systems use water? A systems modeling analysis. *Global Change Biology* 22(2): 666-681.

Daign, A. L., Zhou, X., Helmers, M. J., Pederson, C. H., Horton, R., Jarchow, M., Liebman, M. (2015). Subsurface drainage nitrate and total reactive phosphorus losses in bioenergy-based prairies and corn systems. *Journal of Environmental Quality*, doi: 10.2134/jeq2015.02.0080.

Dietzel, R., Jarchow, M., Liebman, M. (2015). Above- and belowground growth, biomass, and nitrogen use in maize and reconstructed prairie cropping systems. *Crop Science* 55(2): 910-923.

Jarchow, M., Liebman, M., Dhungel, S., Dietzel, R., Sundberg, D., Anex, R. P., Thompson, M. L., Chua, T. (2015). Trade-offs in agronomic, energetic, and environmental performance of corn and prairie bioenergy cropping systems. *Global Change Biology Bioenergy* 7(1): 57-71.

Nichols, V. A., Miguez, F. A., Jarchow, M., Liebman, M. Z., Dien, B. S. (2014). Comparison of cellulosic ethanol yields from Midwestern maize and reconstructed tallgrass prairie systems managed for bioenergy. *BioEnergy Research* 7(4): 1550-1560.

Jarchow, M., Liebman, M. (2013). Nitrogen fertilization increases diversity and productivity of prairie communities used for bioenergy. *Global Change Biology Bioenergy* 5(3): 281-289.

**A3. Peer Reviewed Publications Published (before beginning at USD) (n = 8)**

Jarchow, M., Liebman, M., Rawat, V., Anex, R. P. (2012). Functional group and fertilization affect the composition and bioenergy yields of prairie plants. *Global Change Biology Bioenergy* 4(6):671-679.

Kepner, W. G., Ramsey, M. M., Brown, E. S., Jarchow, M., Dickinson, K. J. M., Mark, A. F. (2012). Hydrologic futures: using scenario analysis to evaluate impacts of forecasted land-use change on hydrologic services. *Ecosphere* 3(7): 69.

Jarchow, M., Liebman, M. (2012). Nutrient enrichment reduces complementarity and increases priority effects in prairies managed for bioenergy. *Biomass and Bioenergy* 36: 381-389.

Jarchow, M., Kubiszewski, I., Larsen, G. D., Zdorkowski, G., Costanza, R., Gailans, S. R., e. a. (2012). The future of agriculture and society in Iowa: four scenarios. International Journal of Agricultural Sustainability. *International Journal of Agricultural Sustainability* 10: 76-92.

Jarchow, M., Liebman, M. (2012). Tradeoffs in biomass and nutrient allocation in prairies and corn managed for bioenergy production. *Crop Science* 52: 1330-1342.

Jarchow, M., Rice, J. W., Ritson, R. M., Hargreaves, S. K. (2011). Awareness and convenience important in increasing conference sustainability. *Sustainability Science* 6: 253-254.

Jarchow, M., Liebman, M. (2010). *Incorporating prairies into multifunctional landscapes: establishing and managing prairies for enhanced environmental quality, livestock grazing and hay production, bioenergy production, and carbon sequestration* (PMR 1007 ed.). Ames, IA: Iowa State University University Extension, 25 pages – revised in 2011.

Jarchow, M., Cook, B. J. (2009). Allelopathy as a mechanism for the invasion of *Typha angustifolia*. *Plant Ecology* 204: 113-124.

**A4. Non-peer Reviewed Research Publications Published (n = 5)**

Sweeney, M., Jarchow, M. (2016). University of South Dakota - Sustainable Rivers: Integrating Earth Science and Sustainability Across the Curriculum. In David Steer and Cailin Huyck Orr (Ed.), *InTeGrate's Model Programs that bring an Earth-focus to the Undergraduate Classroom*. https://serc.carleton.edu/integrate/programs/implementation/southdakota/index.html

Jarchow, M., Pettersen, M., Kruse, A.\*\*, Port, S., Collier-Wise, K., Moen, J. R., Alexandrescu, A. (2016). *Visioning Vermillion: Shared Stories of Our Future*, 20 pages.

Jarchow, M., Liebman, M. (2014). *Incorporating prairies into multifunctional landscapes*. American Society of Agronomy. http://www.cai.iastate.edu/modules/module.aspx?modID=113

Jarchow, M., Liebman, M., Dhungel, S., Dietzel, R., Sundberg, D., Anex, R. P., Thompson, M. L., Chua, T. (2014). *Tradeoffs in agronomic, energetic, and environmental performance of prairie and corn bioenergy cropping systems*. Proceedings of the South Dakota Academy of Science 92: 176.

Jarchow, M., Liebman, M. (2011). Maintaining multifunctionality as landscapes provide ecosystem services. *Frontiers in Ecology and the Environment* 5(9): 262.

**B. Research Grants**

See also Section II Part B for grants focused on pedagogy.

Total Pedagogy Grants Received = $1,124,991

Total Research Grants Received = $6,440,017

**B1. Extramural Grants Received**

Total with Jarchow as the PI or Co-PI = $6,422,275

Stoy, P. (Principal), Jarchow, M. (Co-Principal), Swanson, D. (Co-Principal), Poulter, B. (Co-Principal), Rashford, B. (Co-Principal), Grant, "RII Track-2 FEC: Sustainable socio-economic, ecological, and technological scenarios for achieving global climate stabilization through negative CO2 emission policies", National Science Foundation, Federal, $6,000,000 (USD Subaward = $1,860,000). Funded, August 2016 – July 2020.

Jarchow, M. (Principal), Grant, "REU Site: Sustainable RIVER (Remediating InVasives to Encourage Resilience)", National Science Foundation, Federal, $363,662. Funded, September 2016 – September 2019.

Jarchow, M. (Principal), Grant, "Prairies in multifunctional landscapes: Understanding the effects of disturbance and plant phenology (Year 2 continuation)", South Dakota Board of Regents, State, $21,536. Funded, August 2015 – June 2017.

Jarchow, M. (Principal), Grant, "Visioning a sustainable and desirable Vermillion", South Dakota Community Foundation, Private, $9,250. Funding is through Greening Vermillion, a non-profit organization that I chair, Funded, June 2015 – August 2016.

Jarchow, M. (Principal), Grant, "Common nighthawk (*Chordeiles minor*) nesting ecology in an agriculturally dominated landscape: Susceptibility to land-use change", South Dakota Department of Game, Fish and Parks, State, $2,862. Funded, March 2015 – March 2016.

Jarchow, M. (Principal), Grant, "Prairies in multifunctional landscapes: Understanding the effects of disturbance and plant phenology", South Dakota Board of Regents, State, $24,965. Funded, August 2014 – August 21, 2015.

**B2. Intramural Grants Received**

Total with Jarchow as the PI or Co-PI = $17,742

Jarchow, M. (Principal), Grant, "Prairies in multifunctional landscapes: understanding the role of plant phenology and disturbance", Office of Research and Sponsored Programs, The University of South Dakota, $10,000. Funded, November 2013 – August 2014.

Jarchow, M. (Principal), Grant, "College of Arts and Sciences Faculty Summer Research Funds Program - Meghann Jarchow", College of Arts and Sciences, The University of South Dakota, $7,742. Funded, June 2014 – August 2014.

**C. Other Activities**

**C1. Conference Presentations**

**(delivered by Jarchow at professional conferences since arriving at USD) (n = 21)**

Association for the Advancement of Sustainability in Higher Education Conference and Expo, San Antonio, TX, "Using sustainability-themed undergraduate research programs to enhance student engagement in research", International, anticipated October 2017.

Association for the Advancement of Sustainability in Higher Education Conference and Expo, San Antonio, TX, "Developing a doctoral program in sustainability", International, anticipated October 2017.

Association for the Advancement of Sustainability in Higher Education Conference and Expo, San Antonio, TX, "Student learning outcomes in sustainability education: Faculty participation and measured student learning", International, anticipated October 2017.

Upper Midwest Association for Campus Sustainability Conference, Pella, IA, "Using sustainability as a framework to engage undergraduates in research", Regional, anticipated September 2017.

Missouri River Institute Symposium, Vermillion, SD, "Land-use change and sustainability: Visioning for the Upper Missouri River Basin", Regional, March 2017.

Missouri River Institute Symposium, Vermillion, SD, "Using the Missouri River for place-based education and research", Regional, April 2016.

American Society of Agronomy & Crop Science Society of America annual meeting, Minneapolis, MN, "Nitrogen fertilization increases productivity and stability but not diversity in prairies managed for bioenergy", International, November 2015.

Association for the Advancement of Sustainability in Higher Education Conference and Expo, Minneapolis, MN, "Integrating community-based learning into the sustainability classroom: A practical, collaborative approach", International, October 2015.

Water-Energy-Food Nexus Workshop, South Dakota School of Mines and Technology, Rapid City, SD, "Incorporating prairies into multifunctional landscapes", Regional, October 2015.

Upper Midwest Association for Campus Sustainability Conference, Bemidji, MN, "Assessing student learning outcomes for sustainability: Curriculum mapping", Regional, June 2015.

Upper Midwest Association for Campus Sustainability Conference, Bemidji, MN, "Integrating community-based learning into the sustainability classroom: A practical, collaborative approach", Regional, June 2015.

Association for the Advancement of Sustainability in Higher Education Conference and Expo, Portland, OR, "Collaborative information literacy instruction for sustainability", International, October 2014.

Association for the Advancement of Sustainability in Higher Education Conference and Expo, Portland, OR, "Developing a sustainability curriculum", International, October 2014.

Association for the Advancement of Sustainability in Higher Education Conference and Expo, Portland, OR, "Using Earth Day as a catalyst: Creating a link between the university and community", International, October 2014.

Midwest-Great Lakes Society for Ecological Restoration Annual Meeting; Symposium title: Finding commercial uses for prairie vegetation in agricultural watersheds, Society for Ecological Restoration, St. Paul, MN, "Presentation title: Ecological and agronomic tradeoffs in prairies managed with nitrogen fertilization", Regional, March 2014.

Upper Midwest Association for Campus Sustainability Conference, Decorah, IA, "Developing a sustainability program at the University of South Dakota", Regional, November 2013.

Ecological Society of America Annual Meeting, Minneapolis, MN, "Tradeoffs in agronomic, energetic, and environmental performance of prairie and corn bioenergy cropping systems", International, August 2013.

South Dakota Biotech Association Annual Meeting, Sioux Falls, SD, "Tradeoffs in ecosystem goods and services for prairie bioenergy production", State, October 2012.

Agronomy Society of America Annual Meeting, OH, "Biomass production and ecosystem services in Iowa biofuel cropping systems", International, October 2012.

Systems, Society, Sustainability, and the Geosciences, Science Education Resource Center at Carleton College, Northfield, MN, "Using process-focused assessments for teaching sustainability", National, July 2012.

Transcending Sustainability: Principles and Paradigms Exploring Deep Sustainability Conference, Maharishi University of Management, Fairfield, IA, "Teaching transformative sustainability in higher education", National, June 2012.

**C2. Other Published Materials**

InTeGrate Implementation Program Leaders (2017). *InTeGrate Implementation Programs - Synthesis of Lessons Learned*. https://serc.carleton.edu/integrate/programs/implementation/index.html#synthesis.

Jarchow was one of multiple faculty members who developed this synthesis.

Sweeney, M., Jarchow, M. (2016). Using the Missouri River to Integrate Science and Sustainability Across the Curriculum. *National Association of Geoscience Teachers In The Trenches* 6(3): 5-6.

Jarchow, M. (2015). Spirit Mound as a learning laboratory. *Spirit Mound Trust Newsletter*.

Jarchow, M. (2014). Prairie progress at Spirit Mound. *Spirit Mound Trust Newsletter*.

**C3. Workshops Led**

Huyck Orr, C., Jarchow, M. (Co-Workshop Coordinators). Teaching Science in Society: Building Relevance and Interest for Undergraduates by Adding InTeGrate Resources to Your Class. Ecological Society of America Annual Meeting, https://serc.carleton.edu/ESA2016/index.html. Half-day workshop attended by 12 faculty members, August 2016.

Jarchow, M., Sweeney, M. (Co-Workshop Coordinators) Sustainable Rivers – InTeGrate Workshop. Full day workshop for 11 USD faculty members, May 2015.

**IV. SERVICE AND ENGAGEMENT**

**A. Administrative Appointments**

Jarchow is the Coordinator of the Sustainability Program.

**B. External Service**

**B1. Extramural Review Panels**

2017 U.S. Department of Agriculture National Institute of Food and Agriculture (USDA NIFA) Ecosystem Services and Agro-ecosystem Management and Bioenergy and Multifunctional Landscapes Panel Reviewer (panel meets in November 2017)

**B2. Grant, Journal, and Book Reviewing**

2016 National Science Foundation External Reviewer – Research Experiences for Undergraduates

2014 *World Hunger: Ten Myths* by Frances Moore Lappé Invited External Reviewer

*Ad-hoc* peer reviewer for the following journals since beginning at USD:

*PLoS One, Global Change Biology, Global Change Biology Bioenergy, Applied Vegetation Science, Environmental Studies and Sciences Journal, Landscape, Land,* and *Landscape Ecology*

**B3. State and Regional Service**

2012-present Upper Midwest Association for Campus Sustainability Steering Committee Member

2017 SD EPSCoR Undergraduate Research Symposium Poster Judge

2015-2016 Science Olympiad Session Leader

2012 New Academy of Sustainability Committee Member

**B4. Local Service**

2014-present Greening Vermillion Co-founder and Chairperson

2013-present Vermillion Earth Days Co-founder and Coordinator

2012-present Spirit Mound Trust Board of Directors Member – Vice-President since 2016

2016-2017 It’s All About Science Poster Judge

2014-2015 Women in Science Session Leader

2013-2014 Missouri River Clean-up Committee Member

**B5. Consulting**

2017 Gustavus Adolphus College Johnson Center for Environmental Innovation Invited Reviewer

**B6. Other Activities**

2015 Association for the Advancement of Sustainability in Higher Education Conference and Expo Presentation Reviewer

2014-present Regular contributions to youth education including K-12 school guest lectures, developing and leading field trip sessions, developing and leading Girl Scout sessions, developing and leading sessions in partnership with local non-profit organizations (~400 children/year)

2012-present Regular contributions to (mostly local and regional) media through interviews for newspaper articles, magazine stories, and radio and television programs; often with a focus on increasing awareness about the Sustainability Program (~20/year)

**C. University Service**

**C1. University and College of Arts and Sciences Service**

2017-present Center for Teaching and Learning Faculty Advisory Council Member

2016-present College of Arts and Sciences Blue Ribbon Task Force Member

2015-present Phi Beta Kappa Committee Member

2015-present Academic and Career Planning Center Career and Internship Task Force Member

2014-present Presidents’ Joint Committee on Sustainability Member

2012-present Missouri River Institute Affiliated Faculty

2012-present College of Arts and Sciences Science/Math Division Secretary

2012-present Guest lectures in Biology, Psychology, Media & Journalism, Arts & Sciences, Honors (~2 guest lectures/year)

2014-2017 IdeaFest Session Moderator

2014-2016 College of Arts and Sciences Diversity in the Curriculum Committee

2013-2015 Scholarship Recognition Days Interviewer

2012-2013 Center for Teaching and Learning Grants Task Force Member

**C2. Sustainability Program Service**

2015-present External Sustainability Advisory Committee Chair

2012-present Faculty Sustainability Advisory Committee Chair

2012-present Sustainability Series Coordinator

2012-present Sustainability Program Newsletter Author and Editor

2012-present Sustainability Program Recruitment Coordinator

2014-2016 Sustainability Program Online Coordinator

**C3. Department of Biology Service**

2013-2016 Graduate Travel Committee Member (2013-2014), Chair (2015-2016)

2014-2016 Committee for Department Improvement Member

2012-2013 Graduate Student Steering Committee Member

2012-2013 Ecosystem Ecologist Search Committee Member

**C4. Service to Students**

2017-present ‘Yote Bike Share Program Faculty Coordinator

2017-present Give and Go (Move-out Day Waste Reduction Program) Faculty Coordinator

2013-present Sustainability Club Faculty Advisor

2015-present Veg Circle Faculty Advisor

**C5. Trainings Completed**

2017 Bridges: Taking Action

2016 Responsible Conduct of Research (9 week program)

2015 Bridges: Building a Supportive Community

2015 CITI Program Training – Social Behavioral Research Curriculum

2014 Safe Zone Training