

Melanie E. Carden-Jessen
Springfield Missouri 65802
Mobile: 417-224-5219
Email: MCardenJessen@MissouriState.edu

EDUCATION

Doctorate of Education - 5/2022 (Projected)

University of Missouri
Columbia, Missouri US

ABD: Barriers to Gender Equity for STEM Professors in Professional Degree-granting Institutions of the Midwest US.

Master's Degree - 5/1998

Missouri State University
Springfield, Missouri US
Major: Resource Planning

Bachelor's Degree - 5/1996

Missouri State University
Springfield, Missouri US
Major: BS in ed, Earth Science Comprehensive

TEACHING EXPERIENCE

Instructor

Missouri State University – Springfield 8/2018 to present

Department Head: Dr Toby Dogwiler

- Department of Geography, Geology and Planning
- Program Coordinator for Secondary Science Master of Arts for College of Natural and Applied Sciences.
- Manage on-line resources on Blackboard
- Provide field experiences
- Develop laboratory exercises to correlate with text for Earth Science classes
- Chair College of Natural and Applied Sciences STEM committee
- Supervise student teacher field experiences.
- Serve on Educator Preparation Planning Committee.
- Advisor to Society of Science Educators
- Lecturer and lab instructor for Earth Science for Teachers.

Adjunct Faculty

Ozarks Technical Community College 8/2014 to 5/2019

Department Head: Dana Sherman

- Department of Physical Sciences
- Lecturer and lab instructor for Introduction to Geology including field experiences.
- Collect and maintain hand samples for student study.
- Manage on-line resources on Blackboard, Pinnacle, Canvas, and Mastering Geology.
- Develop laboratory exercises to correlate with text

Junior High Science Teacher

Fair Play R-II School District 08/2014 to 6/2018

Supervisor's Name: Randy Lightfoot

- Responsible for curriculum development for 7th and 8th grade students, student records for 65 students, MAP test administration, and final grades.
- Acquired commercial driver's license to substitute drive bus routes and for field trips.
- Supervised and transported trips for junior high students to various locations such as State Parks.
- Recruited sponsors and solicited funding for students to gain experiences outside Fair Play including trips to MSU basketball games, MSU campus tours with soccer and swim teams, Springfield Little Theater and more.

Education Center Manager, Twin Pines Conservation Education Center 6/2007 - 8/2014

Education Consultant 1/2001 - 6/2007

Missouri Department of Conservation

Supervisor: AJ Hendershott

- Supervise full-time and part-time hourly staff. Provide encouragement, feedback and evaluation.
- Budget duties from preparation and projection to managing operational and salary expenses.
- Develop programming that aligns with Department Mission and Goals and MO GLEs for a variety of audiences including special needs.
- Conduct teacher workshops for career ladder and college credit on a variety of topics including aspects of the natural and cultural resources of the Ozarks.
- Assist schools with analysis of MAP score results and suggest materials available from MDC that might benefit them.
- Conduct programs for a variety of groups, public and private schools, homeschools, and public venues.

Instructor, Lecturer, Full -Time, Per-Course Faculty

Missouri State University 8/1996 - 5/2001

Supervisor: David A Castillon

- Lecturer and lab instructor for Earth Science for teachers, Introduction to Physical Geography, World Regional Geography.
- Responsible for student records, exams, grade assignments, and lesson plans.
- Supervise undergraduate students.
- Assist with field study courses lead by tenured professors including Geology of the Mid-continent Region, and Field Study of the Appalachians, and Field Study of Colorado and Utah.

Graduate Assistant / Teaching Assistant

Missouri State University 11/1995 - 8/1997

Springfield, Missouri US

Research and Field Assistant

Shawnee Nation of Oklahoma/ Dr Burl Self 6/1996 - 9/1996

Summer ZEBRA Day Camp Instructor

Dickerson Park Zoo 6/1995 - 8/1995

PROFESSIONAL PUBLICATIONS

- Energy For Missouri Curriculum - Missouri Department of Natural Resources.
- Conserving Missouri's Aquatic Resources Teacher Guide- MDC.
- Nature Unleashed 4th Grade Curriculum- MDC.

PROFESSIONAL PRESENTATIONS

Greene, J., Carden-Jessen, M. E., and Gutierrez, M. (2021, April 17). Using Project WET to Teach Earth and Environmental Science. Session presented at GSA Joint 55th Annual North-Central / 55th Annual South-Central Section Meeting, Springfield MO.

Carden-Jessen, M. E. (2019, February 25). Earth Science for Biology Teachers. Session presented at Interface Math and Science Teachers Conference, Tan-Tar-A Resort, Lake of the Ozarks, MO.

Carden-Jessen, M. E. (2019, June 1). Basic mineral identification. Lecture presented at Ozarks spring rock and mineral show in Missouri Institute of Natural Science, Springfield, MO.

Carden-Jessen, M. E. (2019, September 25). Geosciences content for the high school biology classroom. GSA Annual Meeting in Phoenix, AZ.

Carden-Jessen, M. E. (2018, December 4). Interpreting geologic maps. Lecture presented at Science Olympiad training session in Central High School, Springfield, MO

Carden-Jessen, M. E. (2018, November 3). Geology of the Springfield Plateau. Lecture presented in Springfield Conservation Nature Center, Springfield, MO.

Carden-Jessen, M. E. (2018, September 29). Caves and karst in the Ozarks. Lecture presented in Giboney cave, Springfield, MO

Carden-Jessen, M. E. (2018, August, 25-26) How radiometric dating works. Lecture presented at Ozarks mini-maker faire in White River Conference Center, Springfield, MO

Carden-Jessen, M. E., Jessen, M. D. (2000, April, 23). Don't cry uncle when teaching science, let ANTZ

help. Presented at interface of Missouri science and math teachers in Tan-Tar-a, Lake of the Ozarks, MO.

Carden-Jessen, M. E. (2000, February 5). Now showing in a classroom near you: Using popular movies to teach geography. Presented at winter institute of the Missouri geographic alliance in Lodge of the Four Seasons, Lake of the Ozarks, MO.

Carden-Jessen, M. E. (1998, April). Predicting soil erosion on off-road vehicle trails in southwest Missouri. Presented at Missouri Academy of Sciences in St. Joseph, MO.

Carden-Jessen, M. E. (1997, November) Exploring the world through cultural geography. Presented at geography awareness week in Crane elementary, Crane MO.

Carden-Jessen, M. E. (1997, October 9-11). Modeling trail erosion rates in the Chadwick ORV use area, Mark Twain National Forest. Presented at West Lakes Division of the American Association of Geographers in Kenosha, WI.

Carden-Jessen, M. E. (1997, April). The role of geographic information systems and volunteers in soil erosion management of off-road vehicle use areas. Presented at Missouri Academy of Sciences in Warrensburg, MO.

NOTE: This is a small sample of presentations prior to my tenure with the Missouri Department of Conservation on cultural geography, caves, water resources, flora and fauna of Missouri and wise use natural resources to meet state MAP testing goals. Two to five presentations per week for 15 years.

JOB RELATED TRAINING

- Project Wild, Learning Tree, WET, and LEP Trainer.
- American Red Cross, Certified Trainer, First Aid, CPR, Wilderness, Instructor
- MAP Senior Leader Training (two years with South Central RPDC)
- National Association of Interpretation Certified and Trainer

GRANTS AWARDED

Einellig, Frank A., Jahnke, T. S., Rebaza-Vasquez, J. L., Odun-Ayo, T., Carden-Jessen, M. E. ADVANCE Catalyst Project to Promote Gender Identity. National Science Foundation Award # 1936641. (\$228,616), 2019.

Carden-Jessen, Melanie. Optics Classroom Grant. Project to introduce students to physics and astronomy including building Galilean telescopes. Missouri State Teachers Retirement Association (\$500), 2016.

Carden-Jessen, Melanie. Electricity Classroom Grant. Project to introduce students to properties of electricity and included students constructing a pressure mat alarm and wiring a dollhouse for lights, doorbell and ceiling fans. Missouri State Teachers Retirement Association (\$500), 2015.

Carden-Jessen, Melanie. "Branching Out for Education." This is a project to provide Missouri Project

Learning Tree Training to all the teachers and aides at Conway Junior High School. In addition, funds are provided to create complimentary curriculum trunks to provide the resources necessary to fully utilize the activities of Project Learning Tree. Missouri Department of Education Incentive Grant (\$4985), 2000-2001.

Emerson, C. W. and Carden-Jessen, M. E. "Environmental Baseline Investigation of the Fulbright Springs Watershed, Missouri." This project is a continuing series of practical class exercises designed to provide students with real-world experience in environmental assessment, while at the same time serving the research needs of local environmental agencies and citizen's groups. Funded by the Environmental Protection Agency (\$24,745) and Southwest Missouri State University (\$8,822), 1997.

REFERENCES

Available upon request

ADDITIONAL INFORMATION

- Governor's Award for Recycling and Recycling Education. 2008
- Springfield News-Leader Environmental Trailblazer. 2004
- Boy Scouts - Awarded Outstanding Service Award. 2004
- Missouri Hunter Education Instructor of the Year 2005
- DESE Grade Level Expectations writer and reviewer Science and Social Studies, 2010
- eMints Certified Instructor, 2016
- Specialized training in dealing with difficult people, 2011
- Specialized training in Suicide Prevention, 2018