

Curriculum Vitae-Russ Colson

Education

Dr. Colson earned a B.S. in Geology from the University of Kansas in 1981 and a Ph.D. in Geological Sciences from the University of Tennessee in 1986. He minored in metallurgical engineering.

Teaching

Dr. Colson has taught at MSUM since 1993, with his teaching characterized by course variety and experiential focus. He has developed twenty undergraduate courses--fourteen in his present teaching rotation. Several courses are adapted to special interdisciplinary needs, such as a geochemistry course tailored for archaeology majors and several courses for in-service and pre-service teachers. All of his courses have lab or field components and six have separate lab sections, which he also teaches. Since earning the rank of full professor, he has continued to develop new experiential opportunities, such as a variety of two-day field trips, a ten-hour computer-based planetary lab, and an educational activity on volcanoes published in the *Journal of Geoscience Education*. He has presented at numerous education conferences, including invited presentations, and wrote a book of activities and classroom stories published by NSTA Press in 2016. Prior to MSUM, he taught introductory courses as an adjunct instructor at Washington University in St. Louis and introductory geology labs at the University of Tennessee. He is a former CASE U.S. Professor of the Year Nominee (2000) and a national winner of the CASE U.S. Professor of the Year award (2010).

Service

Dr. Colson was hired in 1993 to teach service geology courses at MSUM, which had no existing geology faculty or program. He developed courses supporting several majors, purchased supplies, and designed class lab facilities. He proposed an earth science minor in the mid 1990's and later secured staffing and developed majors in Geosciences and Earth Science Teaching. The programs have grown quickly, and students have been highly successful in finding jobs and pursuing graduate schools. In addition to developing and building the geosciences program, he has served on a variety of university committees engaged with student education, including the liberal studies committee (chair) and the committee to evaluate liberal studies science curriculum (chair). He served on the AABAC committee for a year, as the director of the transforming teacher education program for three years, and as geology/geography department chair for three. He edited two editions of the geosciences alumni newsletter. Presently, he is the coordinator of the earth science teaching program and is a member of the teacher preparation committee.

Research

After two years research at the Johnson Space Center in Houston and six at Washington University in St. Louis, Dr. Colson's research now exclusively involves undergraduate participation. With grant funding from NASA, he developed an experimental petrology laboratory at MSUM, one of the few in the country using electrochemical methods to study molten rocks. This lab is well suited to meaningful under-graduate contribution. Through support from the university and a donation from Corning, Dr. Colson brought in a working electron microprobe. MSUM is the only school in our region where undergraduates can work with this versatile instrument. His students give research presentations both at national meetings (fourteen students in past ten years) and at MSUM's on-campus undergraduate academic conference. This experience has helped many students get into jobs or graduate school. Dr. Colson has twice received the university's top award for research involving undergraduates.

Educational outreach

Dr. Colson has worked in educational outreach throughout his career. He has taught over a dozen teacher workshops, including one for which he received NASA funding, and has made dozens of presentations on dinosaurs, planets, and rocks to elementary kids. He routinely participates in a variety of youth science activities including Science Olympiad, a science challenge for high school and junior high students. He has taught college for kids, a week long all-day summer workshop for nine to thirteen year olds. He authored an earth science web page that is listed on a number of teacher resource websites. He is editor for the online magazine *Issues in Earth Science*, which publishes essays, short stories, and teacher resources for use in the earth science classroom. He is coauthor of the NSTA Press book, *Learning to Read the Earth and Sky*.