Stephen Shields

Department of Physics and Geosciences
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EDUCATION

Master of Science (M.S.) in Geospatial Sciences in Geography and Geology 2011 – 2013
Missouri State University, Springfield MO 65897
Thesis Title: "Petrographic Analysis of the Lamotte Sandstone in Missouri: Potential for Carbon Sequestration".

Graduate Certificate in Geospatial Information Science (GIS)

Bachelor of Science (B.S.) in Geology 2007 – 2011
Grand Valley State University, Allendale MI 49401

TEACHING EXPERIENCE

Angelo State University, San Angelo TX
Adjunct Instructor – Geomapping Fundamentals Spring 2019
Instructor of Geosciences Fall 2020 – Spring 2025
Senior Instructor of Geosciences Fall 2025 - Present
Courses Taught: Physical Geology Lecture and Lab (GEOL 1303 and 1103), Historical Geology Lecture and Lab (GEOL 1304 and 1104), Introduction to Hydrogeology (GEOL 3302), Geomorphology (GEOL 3304), Geomapping Fundamentals (GEOL 3371), Field Methods in Geology (GEOL 3102), Field Geology (GEOL 3600), Intro to Physical Science Lecture and Lab (PS 1315/1317 and 1115/1117), Astronomy of the Solar System (PHYS 1304), and research/special topics courses (Stormwater Management, Advanced GIS, San Angelo State Park Hydrogeology, Geologic Mapping of Karst, Special Topics in GIS, LiDAR Hazard Detection, InSAR use in Land Deformation, and Landscape Analysis – Concho River).

ITT Technical University, South Bend IN 46635 March 2014 – July 2014
Adjunct Instructor of Environmental Science and Technical Physics.
Tutored algebra, calculus, and physics
South Bend Community School Corp., South Bend IN, 46601 January 2014 – July 2014
Substitute Teacher K-12.
Missouri State University, Springfield MO 65897 August 2011 – May 2013
Graduate Teaching Assistant and Research Assistant.
Introduction to Geology Lab

UNDERGRADUATE RESEARCH

Stormwater Management ASU: Remediation Designs 2020 – 2021
Stormwater Management ASU: Mapping and Analyzing 2020 – 2021
Geology and Hydrology of San Angelo State Park 2022
Detailed Mapping of the Geologic Controls in the Central Edwards Plateau of Texas 2022 – 2023

Use of InSAR for Hazard Analysis and Prediction	2023
Landscape Analysis of the Concho River Valley	2024
Use of InSAR for Land Deformation in Permian Basin	2025
Hydrogeologic Modelling of the Lipan Aquifer using ArcGIS Pro	2026

GRANTS

2021 ASU Faculty Learning Commons Mini-Grant Recipient for GEOL 1103 Physical Geology Lab. Title: “Reworking GEOL 1103-Physical Geology Laboratory Manual” with Jessica Garza

ABSTRACTS

Hill, Cassidy, and Shields, Stephen A., 2022, Detailed mapping of the geologic controls on karst development in the central Edwards Plateau (in Geological Society of America, 2022 annual meeting; GSA connects 2022, Anonymous) Abstracts with Programs - Geological Society of America (October 2022) 54 (5)

Shields, Stephen A., and Plymate, Thomas, 2013, Petrographic analysis of the Lamotte Sandstone; potential for carbon sequestration (in Geological Society of America, North-Central Section, 47th annual meeting, Anonymous) Abstracts with Programs - Geological Society of America (April 2013) 45 (4): 1

Shields, Stephen A., and Plymate, Thomas, 2012 Petrographic analysis of the fayalite syenite of Grapevine Hills, Big Bend National Park (in Geological Society of America, 2012 annual meeting, Anonymous) Abstracts with Programs - Geological Society of America (November 2012) 44 (7): 543