

David Bruce

Curriculum Vitae

Contact Information

Cell: (316) 304-4044
Email: BruceD@VT.edu

Education

2020 – 2024 (Expected)
Virginia Tech
PhD in Geological Sciences
Disaster Resilience and Risk Management Scholar

Graduated Spring 2020
Central Washington University
Masters of Science in Geological Sciences
GPA 3.967

Graduated May 2018 with cum laude distinction
B.S. Geology, Wichita State University
GPA 3.502
Major GPA 3.778

Research Experience

Masters thesis project advised by Dr. Breanyn MacInnes: Mapping and Modeling the Seattle Fault Tsunami Inundation in Puget Sound

Field assistant on NSF grant funded paleoseismology research to map and reconstruct the paleotsunami record in Queule, South-Central Chile

Senior research project advised by Dr. William Parcell:
Chemostratigraphy of the Middle Jurassic Gypsum Spring Formation, Bighorn Basin, Wyoming.

Conference Presentations, Posters and Short Course

Bruce D., Dura, T., *Quantifying coseismic land-level change along the Cascadia subduction zone in central Oregon.* Geosciences Student Research Symposium, Virginia Tech Department of Geosciences conference-style symposium. Blacksburg, VA (March 2021) oral.

Bruce D, MacInnes B, Bourgeois J, LeVeque R. Mapping and Modeling of the Seattle Fault Tsunami Inundation in Puget Sound. Poster presented at: Seismological Society of America. Annual Meeting; 2020 April 27-30; Albuquerque, NM (Canceled due to COVID-19)

Matos-Llavona P, Ely L, MacInnes B, Dura T, Cisternas M, Nelson A, Dolcimascolo A, **Bruce D**. Geological evidence of 5000-year old tsunamis in the region of the giant 1960 Chile earthquake. Poster presented at: American Geophysical Union. Fall meeting; 2019 December 9-13; San Francisco, CA

Bruce D, Parcell W. Chemostratigraphy of a mixed carbonate-evaporite-clastic system: Elemental and mineralogical patterns in the Middle Jurassic Gypsum Spring Formation, Bighorn Basin, Wyoming. Poster presented at: Geological Society of America. 129th Annual meeting; 2017 October 22-25; Seattle, WA

Bruce D, Parcell W. Elemental and mineral stratigraphy of a mixed carbonate-clastic system: Middle Jurassic Gypsum Spring Formation, Bighorn Basin, Wyoming. Poster presented at: Geological Society of America South-Central Section. 51st Annual meeting; 2017 13-14 March, San Antonio, TX

2016 Short Course attended

Dr. Matthew Pranter, Petrel 3-D reservoir modeling, AAPG/SEG Student Spring Break EXPO, Norman OK.

Scholarships Awarded

Yakima Rock Club Scholarship 2019-2020

Geoengineers Fellowship 2018-2019

War O & Agnes Brooks Scholarship 2017- 2018

Walter A Ver Wiebe Scholarship 2016 - 2017

J Robert Berg Geology Scholarship 2016 - 2017

Wichita Gem and Mineral Society Scholarship 2015 - 2016

Grants Awarded for Master's Research

\$1000.00 Central Washington University Graduate Student Research Support Grant

\$4000.00 PADI Foundation Research Grant

\$2200.00 GSA Research Grant

\$3500.00 Central Washington University Summer Research Fellowship

Grants Awarded for PhD Research

\$1025 SEPM (Society for Sedimentary Geology) Graduate Student Research Support Grant

Teaching Experience

Courses taught as TA

- 2020-2021 **Virginia Tech**
Field Observations
Structural Geology
- 2018-2020 **Central Washington University**
Stratigraphy & Sedimentology (twice)
Intro to Geology Laboratory
Paleobiology
- 2018-2019 **Wichita State University**
Wichita State Field Camp Summer (twice)

Field Experience

- Paleoseismic field investigation in Whidbey Island, and Kitsap Peninsula, WA
- Paleoseismic field investigation in south central Chile
- Field Camp, one month: Northwest Wyoming, Bighorn Basin. Field mapping, sedimentary and structural analysis.
- Basin analysis of Chugwater formation in Big Horn Basin, Wy. Measured unit thickness, and recorded gamma radiation through section for later correlation to well log data.

Professional Experience

Geology Assistant at the Kansas Geologic Survey, March 2016 – August 2018
Responsibilities include the preservation of rotary well cuttings for the Wichita Well Sample Library, as well as being selected to work on a U.S.G.S. funded project to restore damaged existing samples.

Integration Technician with Kansas Geologic Foundation, January 2017- August 2018: Responsibilities include integration of paper well logs to the digital well library for the Kansas Geologic Society.

Technical Experience

ArcGIS, LiAR datasets, GeoClaw tsunami modeling code
Imaging software (Adobe Creative Suite)
Geophysical Surveying (gravity survey of Kittitas County, WA)
Unconsolidated sediment description
Clastic and carbonate rock description
Grain-size analysis and statistics
Kingdom Suite, seismic and geological interpretation software