Andrew G. Clements

Education

University of Georgia, Athens, GA

Fall 2017 - Spring 2019

Master of Science in Geology (geophysics & tectonics) | Advisor: Dr. Rob Hawman

Thesis: Tectonic implications of the Triassic/Jurassic rift basins beneath the southeastern Atlantic coastal plain

University of Wyoming, Laramie, Wyoming

Fall 2016

Non-Degree Geology Graduate Student

Washington & Lee University, Lexington, VA

2012 - 2016

Bachelor of Science in Geology | Advisor: Dr. Chris Connors

Thesis: Velocity modeling and earth modeling on the Chukchi platform, Chukchi shelf, Alaska

Awards

Black Mesa Scholarship (Oklahoma City Community Foundation) for promise in commerce and entrepreneurship | Chickasaw Nation Scholarship (2012 – 2018) | Dean's List (Winter 2013) | Noble Scholar (2012) |

Publications & Presentations

Pritchard, E. H., **A. G. Clements**, B. T. Odom, C. D. Connors, and D. W. Houseknecht, 2016, Cretaceous oblique-slip reactivation of late Paleozoic rift-related faults on the Chukchi platform, southern Chukchi shelf, Alaska (abstract with 2 posters): AAPG Annual Conference and Convention, Calgary, Alberta, June 19-22, 2016.

Clements, A. G., 2016, Velocity modeling and earth modeling on the Chukchi platform, Chukchi shelf, Alaska (Thesis): Washington and Lee University, Lexington, Virginia, p. 1-58.

Internal Publications & Presentations

Clements, A. G., 2016, Initiation and deactivation of mid-ocean ridges: how does it happen? (Lecture)

Clements, A. G., 2016, Velocity modeling and earth modeling on the Chukchi platform, Chukchi shelf, Alaska (Oral Thesis Defense).

Clements, A. G., J. M. Beninati, and R. L. Tassoni, 2015, The metamorphic mineralogy of Sifnos, Greece (Poster).

Clements, A. G., T. J. Waggoner, and S. M. Ball, 2015, Potential sites for the Washington & Lee University solar panel array **(Poster)**.

Clements, A. G., 2014, Analysis of Moores Creek outflow's impact on Woods Creek of Rockbridge County, Virginia: Washington and Lee University, Lexington, Virginia, p. 1-7.

Clements, A. G., 2014, The role of bedrock composition on conductivity of the Maury River and its tributaries (Poster).

Relevant Geoscience Coursework

Graduate

Advanced Topics in Seismology Exploration Geophysics
Reflection Seismology Environmental Remote Sensing
Data Analysis in Geosciences Ocean Tectonics
Master's Research Imperial Barrel Award

Undergraduate

Structural Geology & Tectonics
Sedimentology & Stratigraphy
Field Mapping in the Appalachians
GIS & Remote Sensing
Environmental Field Methods
Global Climate Change

Petroleum Geology & Geophysics
Regional Geology of Greece
Introductory Geophysics
Geomorphology
Senior Thesis Research
Earth Materials I: Rocks & Minerals

Global Climate Change Earth Materials I: Rocks & Minerals
Computer Applications in Geology General Geology with Field Emphasis

Fundamentals of Biology Sequence Stratigraphy Short Course for Graduate Students

Applied Statistics General Chemistry & Lab
Physics I & II Information Technology Literacy
Calculus I-III Differential Equations

Relevant Business Coursework

Managerial Accounting Financial Accounting Microeconomics Macroeconomics

Statistics Financial Modeling & Corporate Valuation

Geoscience Skills

Relevant Field & Lab Experience

- Weekly field labs in most geology courses exploring a multitude of geological phenomena in Rockbridge County, VA and the Blue Ridge Mountains
- Petroleum Geology: used industry software (Petrel, Kingdom, and GOCAD) and data to analyze geologic features, deposits, and basins that are relevant to petroleum exploration and production; contoured, correlated, interpreted logs, and interpreted seismic datasets on paper and computer
- **Geologic Field Methods:** constructed geologic maps and cross sections in southeastern Wyoming and the south-central Blue Ridge, Valley and Ridge, and Appalachian Plateau geologic provinces
- Environmental Field Methods: daily field trips collecting qualitative field observations and quantitative measurements of groundwater, surface water, soil, and air employing standard methods, equipment, and tools used in environmental field investigations
- Sedimentology & Stratigraphy: constructed and correlated stratigraphic columns; conducted field and laboratory
 analyses of sedimentary rocks; employed basic field stratigraphy techniques for several projects and mock research
 proposals
- **Geophysical field equipment experience:** total station land surveying, differential GPS, refraction seismology, UAV aerial photogrammetry, electrical resistivity, gravity and magnetics; acquired, processed, modeled, and interpreted data
- **Regional Geology of Greece:** daily field trips across Crete and the Cyclades observing recent volcanism, metamorphic core complexes, and nappe sequences
- SEM-EDS: multiple projects evaluating chemical composition of igneous, metamorphic, and sedimentary rocks
- XRD: mineral identification projects
- Thin section optical microscopy: multiple projects in mineralogy and petrology

Computer Experience

- ArcGIS: modeling, mapping, digitization, georectifying, spatial analysis, database management, and remote sensing
- IHS Kingdom Suite: reflection seismic interpretation, well-log correlations, mapping, and velocity modeling
- Paradigm GOCAD: 3D structural modeling, interpretation, and coding in GOCAD script
- Global Mapper, MATLAB, GPS Pathfinder, Agisoft Photoscan, Adobe Creative Suite/Cloud, Seisimager/2D, Res2DInv, GM-SYS, OpendTect, Python, R statistical package, Petrel, ENVI, JWEED, and full Microsoft Office Suite

Writing & Communication

 Extensive experience giving oral presentations, preparing and presenting research posters, and writing technical reports

Professional Experiences

Graduate Teaching Assistant, University of Georgia

Aug. 2017- Present

Leading over 20 undergraduates in two lab sections a semester of GEOL 1121: Earth Processes & Environments; Geology tutor at the Rankin Smith, Sr. Student-Athlete Academic Center

GIS Contractor, Farwide Technologies

Feb. 2017- July 2017

Independently constructed hunting zone shapefiles for 33 species in 9 states and designed map overlays from data personally located and acquired from various public sources

Geology Research Assistant, University of Wyoming, *Laramie*, *WY* Structural petrology research on the formation of gabbros

Sept. 2016 – Jan. 2017

Office Assistant, Greystone Environmental Services, Oklahoma City, OK

June 2016 - Aug. 2016

Wrote NEPA Environmental Assessment reports and performed database management

Geology Research Assistant, Washington & Lee University, Lexington, VA

June 2015 – May 2016

Interpreted 2D reflection seismic data using Kingdom Suite, built 3D earth model from interpreted seismic data using GOCAD, designed and developed a geospatial database of Appalachian igneous intrusions using ArcGIS

Leadership & Extracurricular Experience

Imperial Barrel Award Team Captain, University of Georgia

Aug. 2017 - Present

Evaluating a basin's petroleum potential by defining key plays, petroleum systems, leads/prospects, and risks using regional seismic and well datasets to make recommendations based on technical and economic conditions

Vice-President, American Association of Petroleum Geologists, *University of Wyoming* Responsible for recruiting new members and coordinating group meetings and events

Aug. 2016 – May 2017

Secretary, American Association of Petroleum Geologists, *Washington & Lee University* Oversaw communications, planning, and scheduling of meetings and lectures

2013 - 2016

Oklahoma Delegation Political Analyst, 2016 Mock Convention, Washington & Lee University 2014 – 2016 Researched and accurately predicted the OK Republican primary using local and state-wide polling data; contacted and managed communications with knowledgeable academics, lobbyists, and political figures; directed ---==--communications with local business owners to rent 56 trailers for the delegation parade

Outside Interests: bagpiping, running, model railroading, backpacking, fishing, horsemanship, and history

Affiliations

American Association of Petroleum Geologists American Institute of Professional Geologists Geological Society of America Phi Kappa Psi Fraternity

Citizenship

United States of America Chickasaw Nation