

Purpose of the Grant

Teaching in rural Appalachia has allowed for innovation to thrive during the COVID-19 pandemic. STEM fields such as Geology, Biology, and Geography have benefited from the advancements of technology provided by grants sponsored by the WVU Teaching Learning Commons (TLC) to help students meet their learning outcomes and become successful in the courses. Three objectives were completed during the studied years (2020-2022) using resources provided by the Technology in the Classroom (TiG) grant sponsored by the TLC

1. Make use of the new technologies develop innovation in the classroom for either a short- or long-term duration. Improve overall student satisfaction as these new technologies allow for more accessibility to the material and support from the instructor.

2. Have students develop a stronger connection to their region by applying concepts found in their STEM class to local examples. This develops the next generation of "citizen scientist".

3. Find an alternative to OER (Open Educational Resources) when learning is not readily available or become too cumbersome for adult learners.



PaleoProfiles: Kanawha, WV 23 views · Jun 22, 2020

FROM THE FIELD TO PIXELS: USING TECHNOLOGY TO IMPROVE GEOSCIENCE EDUCATION IN APPALACHIA

Early Recording credit: Nick Gardner

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Technology Aided Classroom Fieldtrips

1.25	
	EXPLANATION
Qs 🛛	Quatemary sediments
Tpm	Pliocene and Miocene sedimentary rocks
Тое	Oligocene and upper Eccene sedimentary rocks
Төр	Middle Eccene through Paleocene sedimentary roc
Ke	Cretaceous sedimentary rocks
Mzi	Lover Mesozoic sedimentary and igneous rocks
P†Ps	Permian and Penn <i>s</i> ylvanian sedimentary rocks
lvb:	Kississippian sedimentary rocks
DS	Devonian through Silurian sedimentary rocks
06	Ordovician through Cambrian sedimentary rocks
6 Prm	Cambrian metavolcanic rocks and Paleozoic sedimentary and metasedimentary rocks
S £	Silurian through Cambrian phyllite, quartzite, and mica schist
Pru	Opper Paleozoic catactastic rocks
Pip€f	Lover Paleozoic and Precambrian felsic gneiss and granite
Рарба	Lover Paleozoic and Precambrian granite gneiss and granite
p6q	Precambrian quartzite, mica schist, and gneiss
pes	Precambrian mica schist and gneiss
	Contact 35
	- Fault digit
	Areas visited

From Trapp & Horn (1997)

Geoscience students need to view local examples of the topics discussed in class to better meet their learning objectives. In my class, I have used the TiG grant to develop virtual field trips embedded into my lessons to connect students with their local geology. During my time at Potomac State College, I have surveyed at least 12 different localities ranging in geologic ages from the Paleozoic (Middle Silurian – Late Carboniferous) and the Mesozoic (Cretaceous) using the new technology in the Appalachia and Atlantic Coastal Plain.

A Google Drive Containing: Instructor PowerPoints Study Guides Custom Lab Assignments Academic Papers Library Guides

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How are students further supported?

recruitment.

2019

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A Youtube channel Containing: Recorded Lectures Virtual Fieldtrips

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Data suggests that the use of the TiG grant, and innovative teaching did help overall student learning satisfaction despite the pandemic. Grants such as these allow the instructor to improve the classroom learning experience, cultivate lifelong learners, and allow for retention and / or possible