

TCNJ PHY120-A SPRING 2022 TERM PAPER/PROJECT GUIDELINES

OPTION 1 (5 points) – Minimum 400 word essay about your geologic viewpoints.

Summarize the understanding that you have gained with regard to physical geology, geologic materials, economics, and politics. What aspects of geology that you found particularly interesting or entertaining. What questions remain. Your comments on the class content and/or format.

OPTION 2 (20 points maximum) – Minimum 2000-word geological technical report

*The final point total awarded will be determined by the quality of the report.
5 points will be deducted for each day late.*

- This project will involve a more technical format than an essay.
- Your written paper must 8.5x11" portrait layout, with a maximum 12 point type, margins no larger than 1", and no more than 1-1/2 line spacing.
- The total number of pages includes graphics and tables, that individually shall be no larger than 1/2 page for each figure or table, each including annotation and a caption.
- The **Introduction** should include a purpose, scope, and plan of development for your report.
- Purpose - why is this written and what does it convey?
- Scope – What subtopics of the overall topic are addressed, or how the topic is limited in scope due to a focus on a particular issue.
- Plan of Development – what topics are covered in what order, or how the paper structured
- The **Body Text** will contain the background, methods, and paragraphs explaining the issue(s).
- The Discussion, Summary, or Conclusion section will precede the References.
- The final project will be hard copy report handed in before the final exam.
- Please use MS Word.

References will use a proper format following the examples below.

Herman, G.C. and Curran, John, 2010, Borehole geophysics and hydrogeology studies in the Newark basin, New Jersey (38 MB PDF), *in* Herman, G.C., and Serfes, M.E., eds., Contributions to the geology and hydrogeology of the Newark basin: N.J. Geological Survey Bulletin 77, Appendixes 1-4, 245 p.

Herman, G. C., 2013, Utilizing Google Earth for geospatial, tectonic, and hydrogeological research at the New Jersey Geological Survey: Geological Society of America, Abstracts with Programs Vol. 45, No. 1. www.impacttectonics.org/gcherman/downloads/GEO310/GCH_GESymbols/GCH_GE_Geology_Apps.htm.

Van Houten, F. B., 1965, Composition of Triassic Lockatong and associated Formation of Newark Group, Central New Jersey and adjacent Pennsylvania: American Journal of Science, vol. 263, p. 825-8631.

If it is an Internet URL use the [Source Page Title, URL, Date];

ImpactTectonics.org, <http://www.impacttectonic.org>, April 15, 2013 or

Geologic Investigations Map I-2800: This Dynamic Planet, <http://pubs.usgs.gov/imap/2800/>, April 15, 2013

What does style and clarity in technical writing involve?

- logical and systematic development of ideas.
- precise use of formal language
- impersonal style
- clearly constructed sentences
- care with abbreviations and acronyms

Some ideas for topics:

- Petroleum and Gas Resources of the USA and World
- Issues surrounding fracking for natural gas in New York and Pennsylvania
- Transition from fossil fuels into green energies
- Coal Resources of the USA and the World
- Diamond Mines and the Diamond Industry
- Geology and Climate Cycles.
- Groundwater Pollution in New Jersey
- Geology of Mars, Venus, or Mercury
- Fukushima nuclear meltdown explanation and status report

Or please choose one of your own with permission. Please email me your topic for consideration and approval if not included above.