



Write an essay (\pm 3000 words) assessing the impact of map projections on spatial analysis. Provide your practical examples (your maps) to support your assessment. Submit your assignment in a Word document on eFundi.

There was a formal verbal conversation face-to-face in class before the assignment was posted on the LMS.

North-West University is a public research university occupying campuses in three South African cities: Potchefstroom, Mahikeng and Vanderbijlpark.

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Honours (NQF 8)- GEOG 623 (Applications to Geographical Information Systems)

Assignment 1: Map projections

Purpose:

1. Understand the different map projections
2. Understand how map projections have an impact on spatial analysis
3. Create your examples showing how map projections impact spatial analysis

Understanding the influence of map projections on spatial analysis is crucial for accurate results and interdisciplinary cooperation in GIS. It enables spatial analysts to choose suitable projections when dealing with data from diverse sources, ensuring meaningful analysis and map production. This empowers spatial analysts to utilise appropriate projections that align with their analysis goals and ensures the integrity and reliability of their spatial analysis outcomes.

Skills you will practice by doing this assignment:

Geospatial Literacy: Proficiency in understanding and explaining map projections, their underlying principles, and the distortions they introduce.

Cartographic and Spatial Visualisation Skills: Proficiency in creating maps using various projections to represent real-world data. The Ability to visually present spatial information and data through cartographic design.

Problem Solving - This skill is essential in many real-world scenarios where critical analysis is needed.

Critical Spatial Analysis and Decision-Making: Proficiency in critically evaluating the advantages and disadvantages of different map projections for spatial analysis. The ability to compare map projections to determine their suitability for specific applications.

Spatial Analysis and Argumentation: Proficiency in conducting spatial analysis based on practical examples and data represented in maps. The Ability to synthesise data, analysis, and practical examples into a coherent and persuasive argument.

Academic writing skills: Include citing sources, referencing, and adhering to academic styles.

Knowledge:

You will regularly work with geographic data as a GIS analyst or geospatial specialist. Different datasets may come in various map projections, and you must be skilled at transforming and reprojecting data to work with them effectively. Understanding map projections ensures accurate spatial analysis and data integration from different sources.

Task:

- Read peer-reviewed articles on map projections, distortions, and applications of map projections in different fields.
- A starting point to identify peer-reviewed articles is to use Science Direct/Google Scholar
- DO NOT use or cite websites.
- Please use the Harvard referencing style for in-text and reference lists.
- Use the spatial data provided to create your maps that can be used to enhance your essay.

Write an essay (\pm 3000 words):

- Assessing the impact of map projections on the South African Spatial community.
- Discuss how map projections impact spatial analysis, considering each projection's distortions.
- Provide your practical examples (your maps) to support your essay.
- *Formatting requirements*
 - a) Use Times New Roman
 - b) Font size (Headings) 12pt
 - c) Font size (Main Text) 11pt
 - d) Line spacing of 1.5.
 - e) Justified text.
- Submit your work in a Word document on eFundi (LMS)

Due 31 July 2023

Criteria:

It would be best to have a clear and logical flow addressing the task with a good structure. The essay should contain an introduction, body and conclusion. Please use headings in your essay to ensure easy reading. The essay should comprise maps and/or figures to enhance the understanding of the assignment. Please review the rubric to self-reflect if you are on the right track.