GEOG205 Winter 2025 Map Project (25%)

- The purpose is to create a map of your choosing from data import to finish.
- The project outline is completely open if you have specific ideas of your own.
- Use this chance to make a map to show an area or theme that is useful or meaningful to you, or of an area that is relevant to another course. You can use the three categories of assignments as 'models' of the type of map you might produce: 1. Location, 2. Thematic, 3. Topographic; check the examples of some previous project maps (lecture 'Projects').
- Final product is a **tabloid (11 x 17") or letter (8.5 x 11") size map**, submitted along with a **1-2 page description / rationale** behind your area and design - why you chose this area, what you are showing, and your selected design principles.
- This map should embody the principles and processes learned during the course. Do NOT use any **rasterized vector map** as background in your final output. It IS OK to include a raster layer e.g. world hillshade, but not a world topographic map. Having labels that you have not made yourself (e.g., labels from a base map layer) will cost you marks.
- You have 3 full lab days to complete your final projects. A good use of this time might look like:
    - Week 1: Locate and download the data you need and assemble it in ArcGIS Pro (discuss with your TA as needed). Create a Word document for your write-up so you can document your rationale and process as you go.
    - Week 2: Build and style your map as desired and start your print layout; continue to update your write-up.
    - Week 3: Finalize your map layout and write-up.
- Note: We do not require you to stick exclusively to BC or Canadian data, we just have more examples of local data sources. For elsewhere, a Google search ("[place name] spatial data/shapefiles") is a great place to start.

Where to start:

1. Which **map type** would you like to make: Location, Thematic or Topographic?
2. **Geographic area**: BC, other province, other countries?
3. **Scale**: Municipal, Local, Regional, National, Global?

Where to find data:

https://catalogue.data.gov.bc.ca/
https://canadiangis.com/data.php > choose your desired province, then explore the list of sources from there
https://gis.unbc.ca/support/access-datasets/
UNBC L: drive: the DATA folder on the L: drive contains a lot of options. You are also permitted to use some datasets used throughout this course, so long as your finished product is unique and not simply a rehash of a previous lab (e.g., the CA_ProvTer.shp province & territory boundary layer could be useful for any number of thematic maps if you combined it with other datasets).

Additional available datasets:

Canada - NTDB **vector** layers / DEM 1:50,000: https://maps.canada.ca/czs/index-en.html

BC - Vegetation resource inventory (VRI) - forest cover and related thematic layers

PG (and other BC cities) - all city layers including DEM, contours and vectors

Census Canada: https://library.unbc.ca/collections/data-statistics (can be hard to work with!)

Other - the list could be endless ... you are not limited by the above

See for example: https://en.wikipedia.org/wiki/List_of_GIS_data_sources

If you have no distinct other plans, you could follow one of these templates below:

For a location map:

- Choose a municipality (for anywhere in Canada, see the Canadiangis.com link above; for anywhere else, try a Google search like "[place name] spatial data" or "[place name] shapefiles")
- Gather some point, line, and polygon layers of your area of interest
- Consider including a locator map

For a thematic map:

- Access a dataset containing administrative boundaries for your area of interest
  - Info for accessing World Administrative Boundaries here: https://gis.unbc.ca/support/access-datasets/
  - CA_ProvTer.shp from earlier in this course (it's okay to use the boundary layer we used in labs, but we'll expect more from you because you've worked with these data before!)
- Build your own .csv file containing thematic data you find online (e.g., one column for country or province name, one column for the data like coffee consumption, etc.) – be sure to include at least 10 administrative boundaries
  - Join the .csv file to the cartographic boundaries shapefile like we did in Lab 5
- Consider narrowing your focus to a specific continent, so long as there are enough countries in it, or narrow your focus down to one country with at least 10 states or provinces.
- Be sure to credit the source and time frame of your data

For a relief map:

- Include a hillshade
- If using contours, include index contours with proper labeling (i.e., label only the index contours and display index contours more boldly than the intermediate contours)
- Consider including a locator map
- Consider adding graticule lines (ask your TA how to do this, or Google search for ArcGIS Pro help articles)

Some general ideas if you still don't know where to start:

- Build a general / tourist map for an area that interests you
- Create a topographic map of a hiking trail that you like
- Build a map of any municipality with available data in BC or Canada, or a different city or country that interests you
- Create a thematic map for something like coffee consumption, world happiness ranking, etc., by country or province/state

Report: 5% 1-2 pages 1.5 spacing suggested

- Rationale for choice of area and map type
- Brief summary of layers used and their source
- What we are looking at on display
- Design principles - what you tried to show
- Properly written, not an essay, but avoiding typos and poor grammar

Map: 20% … 5% for each of these items: - see the last page for more detail

- Symbolization
- Lettering
- Ancillary information
- Complexity – overall layout

GEOG205 Winter 2025 (25%) Map project evaluation = 5% for each subheading

- **Report: 1-2 pages 1.5 spacing suggested**

  Text description / rationale: Well written, avoid typing/grammar errors
  Clarity of why you chose this area and topic (map type) – interest and initiative
  Brief summary of data used and their source (no need for 'from the GIS Lab')
  Design principles – what you have tried to show
  Description of any data processing (if you had to do more than just input and style layers)

- **Symbolisation**

  Are the symbols suitably designed – colours, size, pattern, shape, contrast, etc.
  If you have a roads layer, are they classified by size?
  Have you included point, line, and polygon layers?
  Is there sufficient contrast and none are overwhelming?
  Are the data of suitable resolution for the mapping scale selected
  Is anything missing – layers or features?

- **Lettering**

  Are the lettering types suitable - font, size, etc. (e.g. italics for water)
  Do they contrast between classes and stay consistent within classes
  Are they positioned according to the general rules e.g. river names above/along lines
  Point labels horizontal where possible, and clearly linked to their point symbols
  Areas oriented to reflect the area, possibly spread out
  Should be minimum 10 labels applied; check also legend / title lettering choices

- **Ancillary information**

  Is title suitable? Concise but complete, clear but not overly large, no word ‘Map’
  Scale bar – simple, round numbers? Good size/subdivisions
  Legend – only include required items; modest size - not dominant
  Data sources given for thematic and specific layers (not general layers)
  North arrow not always required, but if used, is it correct?
  Neatline, graticules, and locator map IF needed

- **Overall layout and complexity**

  Is the page area well used – limited white space
  Placement of ancillary items in suitable locations - and subordinate to the map content
  Attention to figure-ground / visual hierarchy – layers as background and foreground
  Overall balance and general appeal – does the map presentation attract the user
  Is it reasonably complex (but not cluttered), and an interesting topic?