

## **GEOG 102 Human Geography**

### **Lab - Map Exercise (30 marks)**

#### **Learning Outcomes:**

Upon successful completion of the lab, the student will be able:

- to understand the importance of maps in representing distance and location
- to use dot-symbol, choropleth, and iso-line methods to present information on maps;
- to include an appropriate title, scale, legend, indicator of direction, and source of information on maps;
- to describe and explain location, distribution, and diffusion patterns

**Note:** This lab can be done individually or in a small group of 2-3 students. All group members will receive the same grade. A different grouping must be formed in other labs.

**Students are strongly encouraged to consult the following reference materials before completing the map exercise.**

Fouberg, Erin, Alexander Murphy, H. J. De Blij, and Catherine Nash. Human Geography: People, Place and Culture, Canadian ed. Mississauga: John Wiley. 2012, pp. 10-18.

Northey, Margot, and David B. Knight. 2015. Making Sense in Geography and Environmental Studies. 5th ed. Toronto: Oxford University Press, pp. 194-199.

Stanford, Quentin H., ed. 2008. Canadian Oxford World Atlas. 6<sup>th</sup>. ed. Toronto: Oxford University Press.

#### **Useful websites for downloading outline maps:**

You may use an outline map from one of the following sites.

- Get an outline map of any country (including Canada) and one of the provinces of Canada from:
  - The National Geographic Expeditions.  
[http://education.nationalgeographic.com/education/mapping/outline-map/?ar\\_a=1](http://education.nationalgeographic.com/education/mapping/outline-map/?ar_a=1)
- Get an outline map of Canada or one of its provinces from:
  - Atlas of Canada. <http://atlas.nrcan.gc.ca/site/english/maps/reference>
- Get an outline map of regions in BC from:  
[http://www.bcstats.gov.bc.ca/StatisticsBySubject/Geography/ReferenceMaps/Census.as](http://www.bcstats.gov.bc.ca/StatisticsBySubject/Geography/ReferenceMaps/Census.aspx)

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- A map of Vancouver Island is available from:  
[http://www.sfu.ca/geog/geog455\\_1131/Home/media/images/figure1.jpg](http://www.sfu.ca/geog/geog455_1131/Home/media/images/figure1.jpg)

**Useful websites for data sources:**

B C Stats. <http://www.bcstats.gov.bc.ca>

Statistics Canada. <Http://www.statcan.ca>

**Data on Canada's median household income are available from:**

<http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil108a-eng.htm>

**Data on Canada's unemployment rates are available from:**

<http://www.statcan.gc.ca/daily-quotidien/140404/t140404a003-eng.htm>

**Data on population of BC municipalities are available from:**

<http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>

**Complete all three parts of the lab. Read instructions carefully in Part A to create your map. Submit your data sheet for your map in part B. Write short answers in Part C. Writing must be legible to get marks.**

**Part A. Map Exercise (20 marks)**

Create one of the following maps on a sheet of 22 cm. by 28 cm. (8.5" x 11") paper :

- i) A map showing the provincial variations in median household income or unemployment rates in Canada;
- ii) A map showing the number of stores of a retail chain in the ten largest cities in BC.
- iii) A map showing the location of cities (10,000+) on Vancouver Island within 100, 200, and 300 km zones of Victoria.
- iv) A map of any geographical region (ranging from a neighbourhood to the whole country) with a specific human activity theme, such as, population distribution, patterns of communication or transportation system, location of industry, retail services, or cities.

The use of appropriate methodology is important in mapping. Use a dot or symbol map to show exact location of population or economic activity. A choropleth map is used to show regional variations of an activity (a legend showing different values of the same phenomenon are often used). An iso-line map is applied to show places of equal value (such as equal distance, etc.). See also examples in Fouberg, pp. 11-18.

Students are allowed to copy the outline (including boundaries, latitudes and longitudes, and scale) of a region/country from a map or atlas but should retrieve information or data from other sources.

**Copying information directly from an atlas, map, or other sources will not allow students the opportunity to achieve the learning outcomes as indicated above and is considered plagiarism.**

**A mark of zero will be assigned in such case. \***



The map is evaluated according to the following criteria:

- there should be a margin of at least 2.5 cm on each side of the paper (8.5" x 11");
- the map should have a specific objective which clearly describes by its title (including subject, region, and year of data);
- the map should have an appropriate scale corresponding to the details of materials (scale can be shown in linear scale, representative fraction or scale statement) (Stanford, p. 8);
- the map should also indicate its position with latitudes and longitudes and labelled also their directions and degrees;
- all symbols must be consistently drawn and applied (e.g. ensure all boundaries, international, provincial, and municipal, and coastlines are properly differentiated);
- the map should have a legend to explain all symbols used;
- information presented on map should use an appropriate method with consistency and balance in design;
- the map should include a citation of the sources of data which you have consulted and gathered information (use style guides, such as APA, MLA, or SSS, for citations and documentation);
- list your data that you use to create the map on a separate sheet

Useful steps to create a map:

1. Choose one of the map options and identify the major focus (theme and place/region) of your map;
2. You may use an outline map from The National Geographic Expeditions.; the Atlas of Canada web site, BC Stats, or atlases identified above or others sources. You may enlarge or reduce the outline map by a photocopier as needed (and adjust the scale on your map page if necessary). Ensure that all information are appropriately presented and included
3. Consult and collect relevant statistical information or other sources of materials for your map and list them on a separate sheet for submission;
4. With the help of an atlas, determine the boundaries, direction and position of the place or region of your map;
5. Use the most appropriate methodology (choropleth, dot-symbol, or isoline) to present the information on the map;
6. Included all necessary details (but do not over done) to make the map meaningful and clear to your audience; consider an alternate method to present the information if they are getting too crowded or unclear
7. Draw a rough draft to ensure a good balance in your design and the details included;
8. Have a fun time drawing the map!

Names \_\_\_\_\_

Student No.: \_\_\_\_\_ Section No.: \_\_\_\_\_

Part B. **Submit the data set that you use for creating the map on a separate sheet.** The data you have collected would allow you to create your map. A one-page sample copy of your data source is permitted if the original data source is more than 5 pages. Document your sources of information with an appropriate style. Consult Northey's Making Sense, ch. 7. (3 marks)

**Part C. Based on your map in Part A, answer the following questions (7 marks):**

1. **What is the scale on your map (in representative fraction or in scale statement)**  
\_\_\_\_\_
2. **What is the distance on earth between the two points farthest apart on your map?**  
\_\_\_\_\_
3. **What is the absolute location of your map (identify the range of latitudes and longitudes for a large area)?**  
\_\_\_\_\_
4. **What is your method of presenting information (choropleth, isoline or dot-symbol)?**  
\_\_\_\_\_
5. **What is the advantage of using this method over others?**  
\_\_\_\_\_
6. **Describe one of the spatial characteristics\* (e.g. its location, distribution, or diffusion pattern) that you can identify on your map.**  
\_\_\_\_\_  
\_\_\_\_\_
7. **Explain briefly what factor contributed to the location, distribution, or diffusion pattern that you identified above.**  
\_\_\_\_\_  
\_\_\_\_\_

\*Spatial characteristics include one or more of the following: location pattern (where things are located), distribution characteristics (how are they arranged), diffusion processes (what forms of movement took place)