Fond du Lac Tribal and Community College
COURSE OUTLINE FORM

01/21/16

Please return this form to the college vice president of academic affairs and the chairperson of the Academic Affairs and Standards Council (AASC)

1. **Prepared by:**

2. **Date submitted:**

3. Date approved:_____   Date revised____11/30/17____

4. **Department/discipline:** ___Geography___

5. **Department(s) endorsement(s):**
(Signatures of the person(s) providing the endorsement are required.)

6. Course Title:___Cartography & Visualization___
Abbreviated course title (25 characters or less):

7. Course Designator:___GEOG___   8. Course Level: ____2005____

9. Number of Credits: Lecture ____2____   Lab__2__

10. Control Number (on site)____24____   Control Number (online)_____

11. Catalog/Course description:

   Course explores the art, science, technology, and ethics of map design and map making. Course topics include maps as representations of reality and culturally situated documents, the power of maps, coordinate systems and projections, scale and generalization, map elements, visual hierarchy and variables, typography, reference and thematic map types, and design considerations for print and web. Students will apply cartographic principles using industry-standard GIS and graphics software to design effective maps covering real-world social, cultural, and/or scientific themes. Meets MnTC Goal Area 6.

12. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses
   Prerequisite(s):
   Co-requisite:

13. **Course Materials** (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).

   Textbook: *Making Maps* by John Krygier and Denis Wood, or equivalent cartography text to be determined by course instructor.

   Additional resources:
   - GIS computer lab (Room 208) with most recent versions of QGIS and Adobe Illustrator software and WebGL-enabled browsers installed.
   - Plotter for poster printing
   - Online videos and interactives as needed.

14. **Course Content** (Provide an outline of major topics covered in course)

1. Map definition
2. Maps as representations of reality
3. Maps as instruments of power
4. Coordinate systems and map projections
5. Scale and generalization
6. Map elements
7. Visual hierarchy
8. Visual variables
9. Typography
10. Reference maps
11. Thematic map types
    a. Qualitative
    b. Choropleth
    c. Proportional Symbol
    d. Dot
    e. Isarithmic/heat
    f. Flow
    g. Cartogram
12. Narrative, place-centered, and performative mappings
13. Emerging topics in Cartography

15. **Learning Goals, Outcomes, and Assessment**
At FDLTCC we have 4 Competencies Across the Curriculum (CAC) areas. They are as follows:

A. Information Literacy (the ability to use print and/or non-print tools effectively for the discovery, acquisition, and evaluation of information)
B. Ability to Communicate (the ability to listen, read, comprehend, and/or deliver information in a variety of formats.)
C. Problem Solving (the ability to conceptualize, apply, analyze, synthesize, and/or evaluate information to formulate and solve problems.)
D. Culture (knowledge of Anishinaabe traditions and culture, knowledge of one's own traditions and culture, knowledge of others' traditions and cultures, culture of work, culture of academic disciplines and/or respect for global diversity.)

Course Learning Outcomes will fulfill the identified competencies.

Course Learning Outcomes.

Upon completion of this course the student will be able to:

1. Discuss the history and significance of the map and mapping as scientific document, cultural tool, expression of power, and artistic representation (A, D) (6-1, 6-2)
2. Produce maps that reflect personal understandings of place and geospatial phenomena (B, D) (6-2, 6-4)
3. Locate and process data for thematic mapping projects, including applying appropriate data classification schemes (A, C) (6-4)
4. Visualize geospatial data as quantitative thematic maps using cartographically appropriate design techniques (A, C) (6-4)

5. Critique maps produced by others based on cartographic soundness and the veracity and impact of their visual messages (B, D) (6-3, 6-5)
6. Present a visual narrative through effective use of cartographic design to tell a story or deliver a call to action (A, B, C) (6-2, 6-4)
7. Design map documents for both print and web consumption (B) (6-4)

16. **Minnesota Transfer Curriculum (MnTC):** If this course fulfills an MnTC goal area, state the goal area and list the goals and outcomes below:

See www.mntransfer.org

Goal Area(s): 6
Goal 6: Humanities & Fine Arts

Does this course require additional material for specific program requirements?
If yes, please provide.

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