

**Fond du Lac Tribal and Community College
COURSE OUTLINE FORM**

Updated 9/23/14

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: 3/25/2015
4. **Department/discipline:** Geography/Physical Education
5. **Department(s) endorsement(s):** _____
(Signatures of the person(s) providing the endorsement are required.)
6. Course Title: Using GPS: Geocaching and Field Mapping
Abbreviated course title (25 characters or less):
7. Course Designator: GEOG/PE
8. Course Level: 1054
9. Number of Credits: Lecture: Lab: 1 (repeatable)
10. Control Number (on site): 20
Control Number (online): 0
11. Catalog/Course description:

Curious about how to use a GPS unit? This course will inform students about the Global Positioning System (GPS) through both conceptual and hands-on applications, such as geocaching and field data collection. GIS software and associated applications will also be introduced.
12. Course prerequisite(s) or co-requisite(s):
Prerequisite(s): None
Co-requisite: None
13. Course Materials (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).
 1. Text: Determined on a yearly basis depending on availability and content
 2. Additional resources:
 - a. Handheld GPS receivers and associated accessories

- b. GIS Lab (Room 208) with Esri's ArcGIS software installed on networked PCs
- c. Outdoor activities locally
- d. Supplemental resources

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

- GPS Concepts – Satellites and the DoD
- GPS Positioning Modes
- Differential Corrections – Accuracy
- Selective Availability – Accuracy
- Pros and Cons of GPS
- Datums, Coordinate Systems, and Map Projections
- Who uses GPS and what are they using it for? (GPS Application)
- Hands-on operation of a GPS receiver
- Integrate position data collected with a GPS unit with GIS software
- Responsible geocaching

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, students will be able to:

1. Describe the global positioning system and how it works (A,B)
2. Identify the differences between recreational-grade and map-grade GPS receivers (A)

3. Identify applications of GPS (A,B,C)
4. Operate a GPS receiver to locate a geocache (A,C)
5. Perform responsible geocaching (C,D)
6. Collect data from the field (A,C)
7. Apply programming to complete an activity (C)

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): N/A

Goal and Outcomes:

Goal: N/A

Outcome:

Complete the following only if you are proposing a new course:

1. Planned pattern of offering:
2. Rationale for course: If this course is an ADDITION or replacement to current offerings, add a detailed explanation of the necessity for the change.
3. Does this course overlap with any course(s) offered at FDLTCC? If so, justify such duplication or indicate other adjustments to be made. Obtain signatures from affected departments.
4. What is the apparent or expressed student need for this course?
5. If this course includes a Native American or specifically Anishinaabe component list campus resource person/s—i.e., campus cultural/spiritual resource person/s and, if necessary, elder/s—consulted and include specific comments and written responses as appropriate.
6. Are there any additional licensing/certification requirements involved?
 - a. Provide a copy of the required licensing/certification standards to the AASC chair and to the vice president of academic affairs.
 - b. Attach the required documentation to show course meets required licensing/certification standards.
7. What types of tutoring will be made available through the CAA to students taking this course?
8. How will the course be evaluated?
9. Special resources—e.g. faculty, space, equipment, library, etc
10. Special course fees:
11. Relationship of course to the college mission statement and goals.
12. Relationship of course to the department’s mission statement and goals.
13. Relationship of course to colleges/university offerings (include tribal colleges).

College or University	Course Number & Title	Credits Awarded	General Education	Program
Hibbing CC				
Itasca CC				
Mesabi CC				
Lake Superior				
Leech Lake				
LCO CC				
Bemidji State University				
College of St. Scholastica				
University of Minnesota - Duluth				
University of Wisconsin - Superior				
Other Tribal College				

College or University	Course Number & Title	Credits Awarded	General Education	Program
MEsOther				