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: 9/1/1997 Date revised: 9/23/2014

4. Department/discipline: Mathematics

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

6. Course Title: Introduction to Statistics
   Abbreviated course title (25 characters or less):

7. Course Designator: MATH

8. Course Level: 1030

9. Number of Credits: Lecture: 3_ Lab: 0

10. Control Number (on site): 35
    Control Number (online): 0

11. Catalog/Course description:
    An introduction to statistics suitable for social and behavioral science majors, but also suitable for students in other disciplines. Topics include statistical theory and experimental design, descriptive statistics, probability distribution models, regression analysis and correlation, inference, and sampling methods. (Meets MnTC goal area 4)

12. Course prerequisite(s) or co-requisite(s):
    Prerequisite(s): MATH 0020 Beginning Algebra OR placement by Accuplacer OR permission of instructor
    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. Textbook: One suitable textbook is Elementary Statistics: A Brief Version. by
Bluman
2. scientific calculator with statistical functions.

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

   1. Introduction to set theory and counting.
   2. Simple probability models.
   4. Descriptive statistics.
   5. Other probability models.
   6. Regression analysis and correlation.
   7. Sampling techniques.

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. Organize raw data into frequency distributions and various graphs for analysis. (C)
2. Describe data using measures of central tendency, variation, and position. (C)
3. Find the probability of compound events involving additive, multiplicative, and/or conditioned properties. (C)
4. Count the number of ways a sequence of events can occur. (C)
5. Calculate descriptive statistics and probabilities for discrete probability distributions, including the binomial distribution. (C)
6. Analyze the normal distribution and its applications. (C)
7. Use methods of inferential statistics to test the significance of a hypothesis. (C)
8. Predict the value of a dependent variable using linear regression. (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): 4

Goal and Outcomes:
  Goal: Mathematical/Logical Reasoning
  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).

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