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: ____Fall 1997____ Date revised ____09/23/14____

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. 2XXX

10. Number of Credits: Lecture ____3____ Lab ____

11. Control Number (on site)____35_____ Control Number (online)____

12. 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) (Prerequisite: MATH 0020 Beginning Algebra OR placement by Accuplacer OR permission of instructor)

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

> Prerequisite(s): MATH 0020 Beginning Algebra OR placement by Accuplacer OR permission of instructor

> Co-requisite:

14. **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.

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

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

16. **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)

17. **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 4: Mathematical/Logical Reasoning