

# Bemidji State University

## STAT 3650: Probability and Statistics for Secondary Teachers

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Topics include descriptive statistics and graphical representations, basic probability and commonly encountered distributions, random variables, expectation and variance, sampling theory, and inferential statistics including univariate and bivariate data. Calculus is employed in the development of these concepts. Technology is used extensively to motivate and explain concepts and techniques. The course emphasizes and models exercises and pedagogy appropriate for the secondary school classroom.

Prerequisite: MATH 2471.

**B. COURSE EFFECTIVE DATES:** 06/02/2008 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Basic probability and commonly encountered distributions
2. Descriptive statistics and graphical representations
3. Expectation and variance
4. Inferential statistics including univariate and bivariate data
5. Random variables
6. Sampling theory

### D. LEARNING OUTCOMES (General)

1. Participate in designing, executing, and analyzing the results of an experiment
2. Create lesson plans appropriate for a grade level 9-12 class and relevant to content covered in this course

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted