

North Hennepin Community College

MATH 1130: Elementary Statistics

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites:

This course requires both of these prerequisite categories

1. Any one of these five

Placement into MATH 0970/1010/1031/1130/1140

Placement into MATH 1150

Algebra College Level

MATH 0970 - Bridge to College Algebra (Minimum grade: 1.67 GPA Equivalent)

MATH 0980 - Pre College Algebra (Minimum grade: 1.67 GPA Equivalent)

And

2. Any one of these 10

Placement into ADEV 0952 and ADEV 1052

Placement into EAP 0930

Reading at College Level

Reading College Level

ADEV 0951 - College Reading and Learning Strategies I

ADEV 0952 - College Reading and Learning Strategies II (Minimum grade: 1.67 GPA Equivalent)

ADEV 1950 - Reading Texts Critically

EAP 0830 - Reading Skills Development (Minimum grade: 1.67 GPA Equivalent)

EAP 0930 - Academic Reading and Study Skills (Minimum grade: 1.67 GPA Equivalent)

EAP 1230 - College Reading and Studying Skills

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

This is an introductory course in descriptive statistics, probability, random variables, and inferential statistics. Topics include exploratory data analysis, measures of central tendency and variation, linear regression, binomial and normal distributions, the central limit theorem, confidence intervals and hypothesis testing for one population and two populations. Additional topics may include basic probability, conditional probability, Bayes's Theorem, analysis of variance, and chi-squared tests.

B. COURSE EFFECTIVE DATES: 08/26/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Analyze statistically-based results reported in popular media and determine its validity. (MnTC Goal 4: b; Goal 2: a, b) (NHCC ELO 1, 2)
2. Interpret visual summaries and descriptive statistics and explain what these do and do not reveal. (G4: b; G2: a, b) (NHCC ELO 1, 2)
3. Determine probabilities using Binomial and Normal Distributions. (G4: a, b, d; G2: a, b) (NHCC ELO 1, 2)
4. Describe the Central Limit Theorem and use it to determine probabilities. (G4: a, b, d; G2 a) (NHCC ELO 1, 2)
5. Create and interpret interval estimation of one and/or two population mean(s) and proportion(s). (G4: a, b, d; G2: a, b, c, d) (NHCC ELO 1, 2, 4)
6. Create, perform, and draw conclusion of hypothesis testing of one and/or two population mean(s) and proportion(s). (G4: a, b, d; G2: a, b, c, d) (NHCC ELO 1, 2, 4)
7. Experience to use statistical models. (G4: a, b, d; G2: a, b, c, d) (NHCC ELO 1, 2)

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

Goal 04 - Mathematical/Logical Reasoning

1. Illustrate historical and contemporary applications of mathematical/logical systems.
2. Clearly express mathematical/logical ideas in writing.
3. Explain what constitutes a valid mathematical/logical argument(proof).
4. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

1. Knowledge of Human Cultures and the Physical and Natural World--Through study in the sciences, mathematics, social sciences, humanities, histories, languages, the arts, technology and professions.
2. Intellectual and Practical Skills--Including: Inquiry and analysis; Critical and creative thinking; Written and oral communication; Quantitative literacy; Information literacy; Teamwork and problem solving.
4. Integrative and Applied Learning--Including: Synthesis and advanced accomplishment across general education, liberal studies, specialized studies and activities in the broader campus community.