COUNTY COLLEGE OF MORRIS
Course Information Outline

Course Title__Basic Statistics_____ PREFIX&NUMBER __MAT 108____

Lecture Hours __45__Laboratory Hours__0__Credit Hours __3____Course Fee__None__

Department Chairperson Approval__J. Monaghan_____ *(signature)* _____ Date_04-03-2009_

Division Dean Approval__P. Enright_____ *(signature)* _____ Date_5/1/09_

1. Catalog Course Description
An introduction to statistical methods and reasoning as applied to practical problems. Topics include collecting and summarizing data, histograms and other types of graphs, descriptive statistics, normal distributions, sampling, surveys, use of computers in statistics and interpretation of data.

2. Prerequisite(s)
MAT 010 or MAT 014 or MAT 050 or equivalent.

3. Co-requisite(s)
None

4. Textbooks
Larson, Ron: *Elementary Statistics*, 4th ed. (Prentice Hall).

5. Supplementary Books and/or Materials
Student Study Pack including Student's Colutions Manual and CD lectures (Prentice Hall), included with text.

6. Specialized equipment, supplies, facilities, for classes limited by enrollment or restricted by accreditation and/or equipment limitations. (Information will be used to determine differential funding category.)
None

7. Course Content (List of Topics)
- Overview of statistics, data classification
- Experimental design
- Frequency distributions
- Graphs and displays
- Measures of central tendency
- Measures of variation, measures of position
- Basic concepts of probability and counting
- Conditional probability and the multiplication rule

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- The addition rule
- Scatterplots, association, correlation (omit hypothesis testing and the *t*-test)
- Linear regression
- Normal distributions, finding probabilities
- Normal distributions, finding values
- Additional topics: MiniTab, Excel, additional probability

8. **Statement of Course LEARNING OUTCOMES**
   - **Understand** the basic terminology of statistics, such as sample, population, measures of central tendency, variation, and position, and **create** and **interpret** graphs of data
   - **Calculate** and **interpret** measures of central tendency, variation, and position
   - **Apply** probability rules of multiplication and addition to word problems
   - **Find** and **interpret** probability and percentages of the normal distribution and **apply** its characteristics to word problems
   - **Understand** correlation between two characteristics collected on data and **use** regression to make predictions

9. **Statement of Relation to Curriculum(s)**
   MAT 108 is a required part of the business programming and microcomputer options of computer information systems programs and the criminal justice program.