DOANE COLLEGE
Business 215/NRS 215/SSI 217
Applied Statistics
3 credit hours

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Catalog description of course: An introductory course in statistical procedures with applications to business. Topics include descriptive statistics, the binomial and normal distributions, sampling, hypothesis testing, estimation, correlations, contingency tables, analysis of variance and linear regression with bivariate data, and probability: combinations, permutations, basic counting principal, and odds.

Objectives:
1. Define descriptive statistics and concepts of statistical analysis. Define and give examples of various data types.
2. Organize data graphically. Summarize data using measures of central tendency (mean, median, mode, midrange).
3. Calculate the measures of dispersion (standard deviation, variance).
4. Apply the rules of probability and the binomial distribution.
5. Evaluate and convert data to the standard normal score (z-score) for comparison purposes.
6. Interpret linear correlation and linear regression.


Course Requirements:
- 4 Exams (100 points each)
- 3 labs (20 points each)
- Assignments (90 points)
- Semester Review Packet (50 points)
Total points: 600

TI 83 Graphing Calculator very helpful, but not required

Practices concerning Americans with Disabilities, Student Code of conduct and Academic Integrity will follow those outlined in the Doane catalog and student handbook.
Doane College Academic Integrity Policy: 
The Doane College Academic Integrity Policy will be adhered to in this class. All projects and tests will represent your own work. Any use of others’ ideas and words without proper citation of sources is plagiarism and will result in penalties to be determined by the instructor and/or the dean of undergraduate studies.

Cooperative Learning is a must. Students must be able and willing to work with a team or partner on labs and assignments. Time will be allowed in class to accomplish labs and most of the assignments. Students are expected to be respectful, courteous and cooperative.

Attendance is strongly recommended but if a class were missed, getting the assignment ahead of time would be better than afterwards. Students must email me if you miss a class.

### Dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>Exam or Lab</th>
<th>Material to Cover</th>
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<tbody>
<tr>
<td>March 18, 2013</td>
<td>Reaction time lab</td>
<td>Intro/terminology</td>
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<tr>
<td>March 25, 2013</td>
<td>Ch. 1 Test</td>
<td>Measures of center and spread, interpreting different types of graphs, standard score (z-score), normal distributions, standard deviation</td>
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<tr>
<td>April 1, 2013</td>
<td>Mid Ch. 2 Test</td>
<td>Bivariate Data, Linear Correlation, Linear Regression</td>
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<td>April 8, 2013</td>
<td>Helicopters Lab</td>
<td>Rules of Probability, Binomial Distributions</td>
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<td>April 15, 2013</td>
<td>Ch. 4 Test</td>
<td>The Standard Normal Distribution</td>
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<td>April 22, 2013</td>
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<td>Applications of normal distributions and confidence intervals</td>
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<td>April 29, 2013</td>
<td>Ch. 6 Test</td>
<td>Semester Review</td>
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<tr>
<td>May 6, 2013</td>
<td>Hand in Sem. Review</td>
<td>Check grade, Optional Retakes</td>
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### Grading Scale:

- 540-600 total points: A
- 480-539 total points: B
- 420-479 total points: C
- 360-419 total points: D
- Below 360: F