I. Course Description

A study of basic statistical concepts and their application to research problems in kinesiology. Topics include issues related to descriptive and inferential statistics. Suggested Prerequisite: KINE 4311 or equivalent.

II. Rationale

Introductory techniques for descriptive and inferential statistics are provided to prepare kinesiology professionals with fundamental skills necessary to solve research problems.

III. State Adopted Proficiencies for Teachers and/or Administrators/Counselors

N/A

IV. Student Learning Outcomes

Given lectures, demonstrations, out-of-class readings, computer assignments, and class discussions, the student will be able to:

A. differentiate between inferential and descriptive statistics.
B. identify the characteristics of the four kinds of measurement scales.
C. differentiate between discrete and continuous data.
D. explain and interpret typical and atypical frequency distributions.
E. differentiate between independent and dependent variables.
F. apply the following statistical concepts: measures of central tendency, measures of variability, percentile ranks, norms, standard scores, correlation, regression, ANOVA, and chi-square.
G. explain how the normal curve is used to make probability statements.
H. explain sampling error.
I. explain the relation between sample size and confidence interval.
J. differentiate between biased and unbiased sample.
K. interpret sampling error and real difference.
L. explain the difference between parametric and non-parametric statistics.
M. interpret various statistical techniques in professional research.
N. use statistical software to perform statistical analyses.

V. TExES Competencies

N/A

VI. Course Objectives and Outcomes
This course is designed to enable students to:
At the conclusion of this course, the student will be able to:
A. Define sport management and discuss the scope of opportunities the sport industry presents,
B. Discuss major challenges confronting various segments of the industry;
C. Understand the historical, psychological, sociological, and philosophical foundations of sport;
D. Grasp management and organizational concepts and their application in sport enterprises;
E. Apply information about sport management to diverse populations in an unbiased fashion; and
F. Demonstrate critical professional skills.

VII. Course Topics
The major topics to be considered are
A. Measurement revisited
B. Organizing data
C. Percentiles
D. Central Tendency
E. Variability
F. Normal curve and sampling error
G. Correlation
H. Regression analysis
I. t-test
J. ANOVA
K. Nonparametric statistics
L. Advanced statistical techniques

VIII. Instructional Methods and Activities
Methods and activities for instruction include:
A. Class Lectures and Discussions
B. Demonstrations
C. Individual and Group Activates
D. Student Project
E. Computer Technology Interaction

IX. Evaluation and Grade Assignment
The methods of evaluation and the criteria for grade assignment are:

Methods and Percentage of Final Course Grade Each Assessment constitutes

**Evaluation:** There will be two exams in this course and each exam will be weighted the same. Exams will be announced as early as possible and will be multiple-choice in format. PLEASE NOTE: All written work may be subject to submission through [www.turnitin.com](http://www.turnitin.com) as a means of determining original work.

**Homework:** Each student will complete statistical homework assignments that apply classroom information to real world situations.

**Grading:**

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<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>89.50 – 100</td>
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<tr>
<td>B</td>
<td>79.50 – 89.49</td>
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<tr>
<td>C</td>
<td>69.50 – 79.49</td>
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<td>D</td>
<td>59.50 – 69.49</td>
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<td>F</td>
<td>Below 59.49</td>
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X.  Course Schedule and Policies

**Tentative Course Outline:**

<table>
<thead>
<tr>
<th>Tentative Topics</th>
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<tbody>
<tr>
<td>Chapter 1</td>
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<tr>
<td>Chapter 2 &amp; 3</td>
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<tr>
<td>Chapter 4 &amp; 5 - HM #1 Central Tendency &amp; Variability</td>
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<tr>
<td>Chapter 6 - HM #2 Skewness &amp; Kurtosis</td>
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<td>Chapter 7 - HM #3 Descriptives, Correlation, &amp; Regression</td>
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<td>MIDTERM</td>
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<td>Chapter 8 - HM #4 Difference between Means (t-test)</td>
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<td>Chapter 9 - HM #5 One-Way ANOVA</td>
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<td>Chapter 10 - HM #6 One-Way Repeated-Measures ANOVA</td>
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<td>Chapter 11 - HM #7 Two-Way ANOVA (Factorial ANOVA)</td>
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<td>Chapter 12</td>
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<td>Chapter 13 - HM #8 2x2 Chi Square</td>
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<tr>
<td>FINAL</td>
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<tr>
<td>Practical Experience Final</td>
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</tbody>
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**Attendance Policy:** Students are required to punctually attend all class meetings. Excused absences are limited to medical emergencies that can be
verified in writing by a physician, or participation in a TAMU-CC sanctioned event. Late assignments and quizzes will NOT be accepted. In addition, quizzes and tests cannot be retaken other than for an excused absence.

**Grade Appeals:**

As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html). For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**Academic Honesty:** As per the university catalog, “university students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one’s own).

Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to the course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanction to any student involved.

Penalties that may be applied to individual cases of academic dishonesty include one or more of the following:

1. Written reprimand
2. Requirement to re-do work in question
3. Requirement to submit additional work
4. Lowering of grade on work in question
5. Assigning grade of “F” to work in question
6. Assigning grade of “F” for course
7. Recommendation for more severe punishment

The faculty member involved will be responsible for determining the appropriate penalty or penalties for individual cases of academic dishonesty, and may file a record of such offenses in his classes along with any materials involved to his or her college dean. The office of the academic dean of the college which the offense took place will maintain records of all cases of academic dishonesty reported for a period of not more than two years.

Any student who has been penalized for academic dishonesty has the right to appeal the judgment or the penalty assessed. The Appeals Procedure will be the same as that specified for grade appeals. The grade appeals procedure may be found in the University Rules manual at:
http://www.tamucc.edu/~pioweb/rules/index.htm”.

Americans with Disabilities Act (ADA)

The ADA is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disability. If you believe you have a disability requiring an accommodation, you must contact the Disability Services Office (DSO) at (361)825-5816 or visit the office in Driftwood 101. Any accommodations needed are required to come through the DSO. The DSO will then contact your professor and set up necessary provisions. Do not seek accommodations directly from your professor because professors do not have the authority to make such decisions/modifications.

Use of Electronic Devices:

To receive the full benefit from this course the use of electronic devices for unrelated activities (i.e. text messaging, instant messaging, internet surfing, etc) is prohibited. If I suspect improper use of your electronic device I will ask you to leave. If this problem persists I will have you removed from the class.

XI. Textbook(s)

XII. Bibliography


