Dr. Syed  
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[Use this address for most expedient response. Please do not use e-mail in D2L]  
**Office Hours:** By appointment via Collaborate or by Phone [Email me your cell phone number and possible times.]  
**Phone:** (+10) 929 – 2649 [This is my cell phone. Please only use this in case of emergency during the day or by appt.]  

**Course Description** (from catalog)  
This course introduces statistical concepts and procedures important to the analysis of data. Topics include graphing, measures of central tendency, variability, correlation and univariate statistical tests. Computer applications for data analysis are also introduced.  

*This class was developed for the online Educational Administration students. I’ll be honest that it is very challenging. Learning statistics is different from learning material for other courses. Part of the struggle is learning how to learn statistics in addition to learning the content, theory and computation. This is still a struggle for those who take the course on campus, but the challenge is mediated a little by the direct interaction with the instructor and other students. I recommend taking this class on campus if possible. If not, we can all work together to support each other and learn statistics, but you are required to take responsibility for your own learning.*  

**II. Rationale**  
*Learning and Leading through Reflective Practice* is the shared vision of the USD School of Education for all of its programs. The underlying intent of the vision requires that students be exposed to learning experiences that will enhance their ability to engage in life-long learning and leadership roles anchored in reflective practice. This course is designed to prepare students to understand and apply empirical quantitative research using the statistical procedures covered in this course. The goal of this course is to enable students to understand concepts central to quantitative data analysis and to analyze data using basic and commonly used statistical techniques. As such, students will gain a hands-on understanding of statistical programs and learn how to present the results of statistical findings using reflection throughout the analysis and interpretation process.  

**III. Textbook and Materials**  
The required texts and materials adopted for this course are:  
**ISBN-13:** 9781305652972  
Lab activities will require you to use both a calculator as well as online applets and stats programs such as  
Course lecture and study materials will be available on Desire2Learn. Students are encouraged to find additional supplementary sources to help understand concepts.
Highly Recommended (Please note APA style is expected for the reporting of statistics in this course):

Having access to SPSS software would also be helpful but is not necessary for this course. Although it is not required for tests and assignments, it would provide a valuable resource. The graduate student version of SPSS offers all the flexibility you would need for this course and for a thesis or dissertation. Other student versions lack the ability to accommodate many variables and subjects and do not offer the full range of statistical procedures. The student version of SPSS is available at the bookstore, from the publisher, or at online auction sites and online book stores. For all accessibility questions and concerns about using software on university computers, consult the Help Desk (605)-677-5028 or helpdesk@usd.edu; [http://www.usd.edu/its/](http://www.usd.edu/its/).

If you choose to use SPSS on your own, I would highly recommend the following (optional) text:

**Course Objectives and Outcomes**
This course is designed to enable students to:

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<thead>
<tr>
<th>Objectives/outcomes</th>
<th>Standards Code</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>Describe and explain foundational concepts associated with quantitative data analysis</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE Adv #1</td>
<td>Terms, discussions, tests and performance assessment</td>
</tr>
<tr>
<td>Explain when it is appropriate to use each of the techniques covered in the class</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE Adv #1</td>
<td>Terms, discussions, tests and performance assessment</td>
</tr>
<tr>
<td>Describe the necessary statistical analyses given a hypothetical research problem, use appropriate statistical software and compute and interpret any required supplemental hand calculations</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE #1, #5, &amp; #7</td>
<td>Lab projects, tests, performance assessment</td>
</tr>
<tr>
<td>Interpret analysis results</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE Adv #1, #5, &amp; #7</td>
<td>Lab projects, discussion, tests, and performance assessment</td>
</tr>
<tr>
<td>Communicate analysis results effectively in writing</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE Adv #1, #5, #7, #9</td>
<td>Tests and performance assessment</td>
</tr>
<tr>
<td>Increase feelings of personal confidence and comfort about statistics</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE Adv #10</td>
<td>Course evaluation and class discussions</td>
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<tr>
<td>Demonstrate respect, responsibility, integrity, and caring in their interactions with others students and the instructor</td>
<td>DoE 24:16:10:03(3) &amp; (5) SoE Adv #10</td>
<td>Instructor ratings of class discussions and student feedback</td>
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Course Topics
The major topics to be considered in this course:
• Basic statistical terminology and research terminology
• Graphing data
• Measures of central tendency and variability
• The normal distribution
• Hypothesis testing concepts
• Power
• Confidence intervals
• Dependent samples t-test
• Independent samples t-test
• Correlation
• Simple linear regression

Methods of evaluation:

1. Class Discussions: There are a total of 10 discussions, including the introduction (10 points each). Each discussion will begin on the first day of the week and continue throughout the week. With the exception of the introduction discussion (see discussion thread for instructions), each student will begin each week’s discussion by posting answers to 3 questions regarding the content and assignments for the week’s module: “What made sense?” “What seems applicable to your field?” and “What are you still struggling with?” You will then respond to at least two of your classmates’ posts throughout the week. In order to ensure that each student is engaged in the discussion as it evolves throughout the week, you must post on multiple days. It is not acceptable to post all of your discussion posts in one day. If all responses are posted in one sitting, it indicates that the student was not engaged in the discussion throughout the week and points will be deducted accordingly. See course schedule for specific assignments and due dates. Discussions are not limited to the questions posed; groups may discuss all aspects of the weekly module. A rubric for discussion quality is provided on D2L. Active discussion & thoroughness of responses on exercises presented in the groups is expected. Please use Standard English with correct grammar rather than net acronyms for the benefit of all participating. Your response to my prompts must be submitted on the first day of the week. Your response to classmates must be submitted throughout the course of the week and no later than the last day of the assigned discussion (see course schedule for dates). For full credit on discussions you must have one post in response to my prompts and two posts in response to classmate’s (please respond to their initial post to my prompts). Posts must be submitted during the week they are due (if not sooner).

2. Lab activities: There are a total of 9 labs (50 points each). Lab activities will be assigned weekly/biweekly, and can be found in the content folder in D2L. Results of statistics must be presented in APA format. There are numerous resources on D2L for how to properly format in APA style. You may also consult the APA manual lists as a supplemental text. Please do not rely on other sources on the web for APA style. You may submit your labs individually but are encouraged to work on them in pairs. You may choose your own partner. (Groups may not exceed two members). If you work in pairs, you must work on the entire lab as a pair. Therefore, it is not acceptable to “split up” the work. Instead, the purpose of working as a pair is to build off of each other’s understanding of each and every problem in the lab, thus working together on every problem. The names of BOTH partners must be on the lab submitted and it must be submitted by both partners in their own respective drop boxes. To facilitate this group work you may request a Collaborate “room” to use. Please
e-mail your instructor with the names of the group members to be included in the room.
A rubric is provided in the content folder of D2L and due dates can be found on the course schedule. Labs will occasionally require students to use free online statistical software to enter and analyze data, but labs will be graded based on responses to questions as well as appropriate presentation (APA style) and interpretation of results. You will also be asked to show all your work for computations. Familiarize yourself with equation editor in MSWord or you may hand write your computations, scan them and include them in your assignment. Please insert any scanned material into a single document and submit your assignment as a single file.

If you are working with a partner, please include both names on the assignment as well as the title of the submission and both partners are responsible for submitting the assignment to their individual drop boxes to receive credit. Please do not send messages to your instructor in the drop box. All correspondence should be conducted in the D2L e-mail system.

Although students may work ahead, they are encouraged to wait for feedback on previous assignments before submitting any subsequent assignments in the designated drop box since grades are partially based on application of previous feedback received. Submit your assignments on time. Assignments will be docked 50% if submitted within 24 hours past due date and should be submitted in the designated Late drop box. Please only submit one file per assignment. Once you submit your assignment an answer key will be released to your personal content folder. Therefore, you may not add additional files to the drop box (or replace files) once your assignment has been submitted. Also, to maintain the integrity of the course, please do not share the answers with classmates. Once they submit their assignments, they will be able to see the answers in their own D2L pages.

3. Traditional Assessment: There are a total of three Unit Exams (100 points each). Each exam will cover material presented in lecture notes, the texts, and any supplementary materials. See content folder in D2L for study guides. The primary format for this assessment type will be multiple choice but may also require computation and appropriate interpretation similar to that found on weekly labs and group exercises to identify the best answer in a multiple choice format. Tests are taken during a specified time period (approximately a 1-week window). Exams are timed and open-book. Late exams will be docked 50% per day.

Details will be provided in D2L. A proctor is NOT required for exams, however, students are required to take exams INDEPENDENTLY. If you are caught cheating, you will automatically receive an F for the course.

4. Performance Assessment: There is one Performance Assessment at the end of the semester (150 points). This assessment is a cumulative assessment covering the content from the entire semester. It will be an untimed open-book performance assessment, covering a selection of statistical techniques, interpretation of analysis results, and critique of interpretations. Results must be presented in APA format. This assignment will have a combination of multiple choice questions as well as similar problems found in the labs. The Performance Assessment will be released to your individual D2L page as soon as you submit your final lab (Lab 9). It will be released in a word document format. You will respond to all questions in the document and submit in the designated drop box. The due date for this assignment can be found on the course schedule. Submit your Performance Assessment in the designated drop box on or before the due date and time. Your assignment must be submitted as a PDF file. Only submit assignments in PDF. Late Performance Assessments will be docked 50% per day. Please do not send messages to your instructor in the drop box. All correspondence should be conducted in the D2L e-mail system.

5. Dispositions: Students are expected to actively participate in class and demonstrate professional ethics. Participation includes cooperating with other students toward the goal of better understanding the material, respecting other views and ideas, asking questions and contributing to online discussions of ideas. Professional ethics includes honesty in reporting information, dedication to analyzing and reporting information in the most accurate way, and respect for others’ work. Students are expected to demonstrate the dispositions of respect,
responsibility, integrity, and caring in their interactions with the instructor and their peers. Dispositions violations or lack of completing the plagiarism tutorial may result in a grade reduction at the instructor’s discretion. Major deviations from expectations of professional dispositions (as determined by the professor, e.g. cheating on an exam) will result in a lower or failing grade for the course.

Grading
There will be a total of 1000 points for all assessments and assignments in this course. They will be assigned as follows:

| Discussions | 100 points |
| Labs | 450 points |
| Exams | 300 points |
| Performance Assessment | 150 points |
| TOTAL | 1000 points |

1. Grading Scale:

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentage</th>
<th>Letter Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>940 – 1000 points</td>
<td>94-100 %</td>
<td>A</td>
<td>Exceptional</td>
</tr>
<tr>
<td>850 - 939 points</td>
<td>85-93.9 %</td>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>750 - 849 points</td>
<td>75-84.9 %</td>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td>660 - 749 points</td>
<td>66-74.9 %</td>
<td>D</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Below 659 points</td>
<td>Below 65.9 %</td>
<td>F</td>
<td>Failing</td>
</tr>
</tbody>
</table>

2. Grades reflect students’ demonstrations of understanding of the material. As such, performance on tests and assessments must reflect each student’s independent work, not work in concert with other people (unless otherwise specified as in the case of lab assignments –see above).

3. Grades will be computed based on the assessments listed above. No extra credit will be given.

4. Plagiarism and other forms of cheating are not acceptable and will result in disciplinary action.

Instructional Methods and Activities
*Methods and activities for instruction include:*

A. Traditional Experiences
Lecture instruction (PP), class discussion (in assigned groups as well as full class), and reading assignments.

B. Clinical Experiences
Applets or SPSS (and/or other statistical software) interpretation of assignments (labs and exercise assignments) and module content in small groups.

The unit tests and performance assessment will assess mastery of the course objectives. Course terminology in the form of a study guide that includes unit objectives is provided in D2L. Note that successful course performance depends entirely on mastering the objectives. The unit tests may use various formats, such as short answer, true-false, and multiple-choice items. The open-book performance assessment may employ both multiple choice and short answer items. All assessments take place in D2L. Because of the structure of the class, there may be times when readings/assignments and unit tests occur within the same week. The unit tests take about one to two hours to complete.
Class Policies:

• Students are expected to have the textbook on the first day of class.
• Students are expected to thoughtfully and thoroughly read all assigned chapters and to consult D2L and other resources, found on their own, for the course.
• For information about USD’s technical, academic and student support services, as well as how to take advantages of these services, please refer to the CE Online Student Orientation (http://www.usd.edu/continuing-and-distance-education/upload/Online-Orientation-Guide.pdf). This document also contains important information pertaining to minimum technology requirements, registration information, as well as other university services and policies.
• Students may contact me with questions via email outside of D2L: Daniela.Syed@usd.edu Please do not email me in D2L. Although I typically respond to students fairly quickly please plan ahead and only expect a response within 48 hours - only on days in which class is in session (Monday through Friday, except for holidays).
• Exams are graded immediately through the Quiz feature in D2L.
• Feedback on Labs assignments can be expected within 1.5 weeks of the assignment due date, depending on my schedule and other commitments. You can expect feedback on Labs before subsequent assignments are due. Students are required to apply all feedback on previous assignments to future assignments. Answers are released as soon as the assignment is submitted.
• Although it is often used for personal or informal messages, email is also a professional means of communication (e.g., communication with instructors). What you say in an email and how you say it reflects on you professionally. All emails to the instructor are considered public information. The instructor will only respond to emails: (1) That seek assistance for which other sources are not available (e.g., textbook, Web, other students), (2) That are written respectfully and professionally (including grammar and capitalization). The instructor will not respond to emails that are: (1) Informal or too familiar, (2) Imperative. Please utilize D2L mail for all communications regarding this course.
• Students are required to electronically save all copies of completed coursework (i.e. lab projects) that are handed in. Assignments are handed in via Desire2Learn.
• Exams will cover material both from the readings and from lecture. Objectives for each unit can be found in D2L.
• All assignments are due by 11:59PM on the dates in which they are due – see course schedule.
• Late materials (assessments turned in after the due date) will be docked 50% for each day beyond the deadline.
• If an extreme emergency arises, contact the instructor immediately. Excuses such as computer/internet problems will not be accepted. It is advised that students save their work on a pen drive as well as hard drive, locate alternate computing resources in the event of a problem, and arrange to finish assignments/test prior to the deadline. For any exceptions due to medical illness, documentation must be provided indicating that the student was not able to complete the course work (including dates) for exceptions to be considered.
• Learners will be prepared to actively participate in class discussions and activities, including group work. Participation assumes that the learner has read the material before the assigned due date or discussion, has done related individual/group assignments, and has thoughtfully prepared to be involved in her/his own and others’ learning. The instructor reserves the right to reduce a learner’s grade for consistent lack of informed participation, as this demonstrates lack of appropriate dispositions.

• As stated in the Student Code of Conduct (USD Student Handbook, available online at the myU.portal on the Campus Life tab), the integrity of the University community is contingent upon fulfillment of a trust—that the members of the student body will engage in reasonable behaviors to promote and protect the educational environment. The current handbook defines academic dishonesty in this way:
  1. Cheating, which is defined as, but not limited to the following: a. use or giving of any unauthorized assistance in taking quizzes, tests, or examination; b. use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or c. acquisition, without permission, of tests or other academic material belonging to a member of the institutional faculty or staff.
  2. Plagiarism, which is defined as, but is not limited to, the following: a. the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment consistent with accepted practices of the discipline; b. the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. (p. 76)

Therefore, no credit can be given for a dishonest assignment. At the discretion of the instructor, a student caught engaging in any form of academic dishonesty may be:
  1. Given a zero for that assignment.
  2. Allowed to rewrite and resubmit the assignment for credit.
  3. Assigned a reduced grade for the course.
  4. Dropped from the course.
  5. Failed in the course.

Furthermore, violation of the University Academic Honesty Policy could result in the University taking disciplinary action including expulsion from school (see USD Student Handbook).

• Freedom in learning. Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact the dean of the school in which you are enrolled to initiate a review of the evaluation.

• Any student who feels s/he may need academic accommodations or access accommodations based on the impact of a documented disability should contact and register with Disability Services during the first week of class. Disability Services is the official office to assist students through the process of disability verification and coordination of appropriate and reasonable accommodations. Students currently registered with Disability Services must obtain a new accommodation memo each semester.

Contact Information: Disability Services
Ernetta L. Fox, Director
Disability Services, Room 119 Service Center
(605)677-6389
Web Site: disability services found on my portal
E-mail: disabilityservices@usd.edu
Websites of interest
http://www.acs.appstate.edu/~kms/classes/psy2664/StatInText.pdf
http://www.ilstu.edu/~jhkhan/apastats.html
http://www.uwsp/psych/apa4b.htm
http://www.acs.appstate.edu/~kms/classes/psy2664/modelpaper.pdf
http://www.atkinson.yorku.ca/~rokada/apa5th.pdf
http://www.lib.usm.edu/help/style_guides.html

Reporting statistics in results section, APA
Reporting statistics in APA
APA writing guide to complete manuscript
Model manuscript in APA
Summary for research reports in APA
APA style guide for references

Bibliography

The knowledge bases that support course content and procedures include:

A. Contemporary References (1990-present).

B. Classic References

C. Key Journals
1. Journal of Educational Psychology
2. Review of Educational Research
3. Educational and Psychological Measurement
4. Educational Psychologist
6. Journal of Educational and Behavioral Statistics