STA2023 - 1763 – Elementary Statistics Syllabus

INSTRUCTOR:

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Office Hours: See faculty instructor website at http://www.spcollege.edu/instructors/id/geiger.claire

ACADEMIC DEPARTMENT:

Dean: Jimmy Chang   Academic Chair: Nydia Nelson
Office Location: SP/G 215B   Office Location: MT JC308
Office Number: (727) 341-4305   Office Number: (727) 614-7274

COURSE INFORMATION:

Course Description:
This course includes concepts taken from topics which include descriptive statistics, measures of central tendency and dispersion, probability, probability distributions, sampling distributions, binomial distribution, normal distribution, the student’s t distribution, the Chi-square distribution, estimation using confidence intervals, hypothesis testing, linear regression, correlation, and nonparametric statistics. Credit is only given for STA 2023 or STA 2023H, but not both.

Learning Outcomes:

1. The student will utilize descriptive statistics by:
   a. developing basic statistical literacy.
   b. using samples to make inferences about populations.
   c. identifying the most commonly used data collection techniques and sampling methods.
   d. constructing and interpreting graphical displays of data.
   e. calculating and interpreting measures of central tendency, dispersion, and relative standing.

2. The student will utilize probabilistic theory to make statistical inferences by:
   a. employing basic terminology of probability.
   b. applying basic rules of probability.
   c. constructing a sample space to find probabilities of given simple or compound event.
   d. calculating probabilities of simple and compound events.

3. The student will utilize fundamental concepts of random variables and sampling distributions as they apply to statistical inferences by:
   a. identifying a random variable as being discrete or continuous.
   b. calculating probabilities of given events which follow binomial and normal distributions.
   c. applying the Central Limit Theorem.

4. The student will apply fundamental concepts of confidence intervals and hypothesis tests to practical problems in today's society by:
   a. estimating population parameters with confidence intervals using the student t distribution applied to population means.
   b. estimating population parameters with confidence intervals using the normal distribution applied to population proportions.
   c. conducting a hypothesis test using the student t distribution applied to population means.
   d. conducting a hypothesis test using the normal distribution applied to population proportions.
   e. conducting a hypothesis test using the chi-square distribution.
   f. interpreting Type I (alpha) and Type II (beta) error.

5. The student will apply the basic principles of simple linear regression and correlation as well as their applications to practical problems in today's society by:
   a. constructing and interpreting scatterplots.
   b. computing and interpreting the least squares regression equation, the Pearson product moment correlation coefficient and the coefficient of determination.
   c. using a linear regression equation to appropriately predict the value of a response variable.

6. The student will apply basic principles of nonparametric tests by:
   a. recognizing the conditions for appropriate usage.
   b. conducting a hypothesis test.

STUDENT SURVEY OF INSTRUCTION:

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.
MEETING INFORMATION:

Course Location: DT317  
Meeting Days: M/W  
Class Times: 1 – 3:15p

In the event of a hurricane or other emergency that causes the college to shut down, students will have access to continuing the course material online. In such an event, students should check their SPC email and/or MyCourses News for directions.

IMPORTANT DATES:

Course Dates: May 16, 2016 to July 21, 2016  
Last day to drop with refund is May 20, 2016  
Last day to withdraw and receive a letter grade of “W” is June 24, 2016 (60% point)

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION:

Required Text: MyStatLab Student Access Code (Access code will provide a digital textbook to Larson Elementary Statistics 6e. A hard copy of textbook is not required) ISBN Number: 9780321694645 (Students must register for the course below in MyStatLab no later than the first week of classes. Students may register for temporary access if funds are not yet available).

Course Name: STA2023 – Elem. Statistics – Geiger (1763)  
Course ID: geiger58784

Required Calculator: TI84 or TI84Plus. (Instructions for these two calculators will be provided to students. Any student who does not use a TI84 or TI84Plus is responsible for learning how to use their calculator on their own. Phones, iPads and other digital media may not be used as a calculator in class or during assessments). Students may not share calculators on assessments.

Academic Support: http://www.spcollege.edu/support/  
SmartThinking is a website that students may use to chat with a math tutor. It is available via MyCourses.  
SPC Student HelpDesk (for technical support with MyCourses): http://www.spcollege.edu/helpdesk/  
Pearson/MyMathLab/MyStatLab Technical Support: See below  
Syllabus Addendum: http://www.spcollege.edu/addendum/  
Library: http://www.spcollege.edu/central/libonline/  
Grades and attendance are kept in MyCourses. Email is available via MyCourses.  
Disability Resource Center: A student with a documented disability may be eligible to receive services and should visit https://www.spcollege.edu/dr/ to start the process.

Technical Issues with MyMathLab/MyStatLab:

*Students are expected to spend at least 8 hours a week to complete this course as it is designed. Many assignments are completed in MyMathLab. To avoid missing an assignment due to technical glitches, it is recommended that students do NOT wait until the last day to complete an assignment AND that students complete MyMathLab assignments in a Learning Resource Center, which have computers available. It is the student’s responsibility to maintain access to MyMathLab and the instructor will not change assignment content or due dates for students with technical issues unless the instructor can confirm with MyMathLab that the cause of the glitch lies with MyMathLab. In such an event, the instructor will consider the nature and length of the glitch and at the instructor’s discretion may or may not make a change to accommodate for the glitch. If a change is made, all students will receive the same change. If a student experiences a problem with MyMathLab, the student should contact MyMathLab Support immediately and receive a confirmation number. If the glitch is specific to a student and is the fault of MyMathLab, then the student should immediately email the instructor explaining the situation and provide the instructor with the confirmation number so that the instructor may follow up with MyMathLab for consideration. Students should make every attempt to contact MyMathLab to fix the situation before there is an impact on the student’s work. If a student does not contact MyMathLab and receive a confirmation number before the “due date” or did not make an attempt to fix the situation before the due date, and did not contact the instructor with a confirmation number, the instructor will not consider providing any accommodations.

MyStatLab Student Technical Support:  
http://www.pearsonmylabandmastering.com/northamerica/mymathlab/students/support/technical-support/index.html
ATTENDANCE:

ATTENDANCE POLICY (Weeks 1 and 2): Students classified as “No Show” for both of the first two weeks will be administratively withdrawn from any class which they are not attending. The student’s financial aid will be adjusted based on their updated enrollment status. If a student is administratively withdrawn from a class because they were a “No-Show” during the first two weeks of class, financial aid will not pay for the class and the student will be responsible for paying for that class.

ATTENDANCE POLICY (All Weeks):
ATTENDANCE: Students may miss up to 2 classes for unexcused reasons if needed, but this is not recommended. An absence is missing more than 40 minutes of class or can be a combination of missing part of class (see LATE/LEAVE EARLY/BREAKS). An “excused” absence is determined by the instructor and is generally considered to be an unexplained, unplanned, and unavoidable event that prevents the student from being in class and can be documented with dates/times. For example, a doctor’s appointment is not excused since it was planned in advance. Students should always obtain documentation of their situation if they believe that they have an excused absence and submit it to the instructor immediately for consideration. For each unexcused absence beyond 2, 1 percentage point will be deducted from the student’s overall score. For example, if a student has 3 unexcused absences and an 80% in the class at the end of the semester, then the student’s overall grade will reduce to 79% after attendance points are removed.

LATE/LEAVE EARLY/BREAKS: In an effort to create a distraction-free environment for students, excessively arriving late to class, leaving early or taking breaks is not acceptable and will impact a student’s grade. Class begins at 1p and students are expected to be inside the classroom at this time to be considered on time. Class ends at 3:15p and students are expected to be available until that time to avoid being considered leaving class early. When a break is given, attendance will be called after the break. If the student is not in the class at that time, the student will be marked Tardy for that day. Any student that leaves the classroom during the first 15 minutes of class or after a break will be counted as late. Any student that takes 2 or more breaks will be counted as a “T” for that day. Every 2nd tardy/leave early/partial class missed will be counted as an unexcused absence, “H”. For example, if a student is late to class and takes an unapproved break, one unexcused absence “H” will be recorded for the student. (Reminder on attendance policy above: For every unexcused absence beyond 2, 1 percentage point will be deducted from the student’s overall score). Students who arrive late to class are expected to contact the instructor immediately after class so that their absence can be changed to a tardy. If the student fails to contact the instructor immediately after class, then the student should proceed according to “Attendance Disputes” below.

ATTENDANCE DISPUTES: Students are expected to monitor their attendance regularly through MyCourses. If a student has a dispute over attendance, the student should contact the instructor via email within 3 days of the date that is being disputed. Otherwise, the instructor may not be able to accommodate the dispute. When checking on attendance in MyCourses, the following key will be used: “P” – Present, “A” – Unexcused Absence from entire class, “E” – Excused, “T” – Tardy/Leave Early/Portion of class missed, “H” – unexcused absence due to partial class miss.

ACTIVE PARTICIPATION: Students who have more than 2 unexcused absences and have below a 70% in the class at the 60% mark of the semester, will be withdrawn from the course and given a “WF”. This may impact financial aid.

WITHDRAWALS: The last day that a student can withdraw and receive a refund is June 24, 2016. Students may not change from credit to audit after the end of the first week of classes. The last day that a student may withdraw with a course grade of “W” is June 24, 2016 (60% mark). It is the student’s responsibility to withdraw him/herself before the 60% mark date to receive a “W”. After the 60% mark, students will be given the grade that they earn in the class.

DISCIPLINE SPECIFIC INFORMATION:

In an effort to maintain a distraction-free classroom focused on learning and student success, students will be notified if a behavior is not compliant with the SPC Code of Conduct. If the behavior is not corrected, students may be asked to leave the classroom, change seat and/or be required to meet with administration. In some instances, the student may be permanently withdrawn from the class. SPC Student of Code Conduct can be found at: http://www.spcollege.edu/studentconduct/. If a student is asked to leave the classroom, this will result in an unexcused absences or unexcused partial absence. Students will be required to work in teams throughout the semester and are expected to work efficiently and effectively towards their goal. A spirit of cooperation and collaboration is required for this course.

Common distracting behaviors that are not allowed in the classroom: Arriving to class late, leaving early or taking too many breaks (also see below in “ATTENDANCE”). Sleeping in class. Blurting out comments or questions during lecture. Using a cell phone, iPad, laptop, ear buds or other unapproved technologies. Side conversations during lecture time. Asking too many off-topic questions. Food and eating inside the classroom. Students are expected to plan and make arrangements so that they are able to be in the classroom for the entire scheduled time and so that they are able to pay attention and not be distracted for the entire time. For example, frequently leaving the classroom for a phone call or to go to the vending machine is not appropriate since these things could get taken care of before or after class with proper planning on the student’s part.
**Grading Scale:**

- **A** 90% - 100%
- **B** 80% - 89%
- **C** 70% - 79%
- **D** 60% - 69%
- **F** 0% - 59%

Students must receive a “C” or higher in this class for satisfactory completion of the course.

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**Academic Honesty:** [http://www.spcollege.edu/academicohonesty/](http://www.spcollege.edu/academicohonesty/)  Any student involved in cheating will receive a zero on the assignment. If there is a second occurrence, administration will be notified and more serious consequences will occur.

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**Grading:**

**Attendance**  While attendance is not worth a fixed percentage of a student’s grade, it will affect a student’s grade and possibly lead to a course withdrawal. Every 2nd late/leave early/portion of class missed will count as one unexcused absence “I”. Students are allowed 2 unexcused absences without consequence. For each unexcused absence beyond 2, one percentage point will be deducted from the student’s overall grade at the end of the semester. For example, at the end of the semester, if a student has 3 unexcused absences, 4 tardies and an 81% in the class, then the student’s overall grade will reduce to 78% after attendance points are removed at the end of the semester. Please see the “Attendance Policy” above for additional information as needed. At the end of the semester, any student who has a 100% on all homework assignments at the end of the semester will not have any points deducted from their overall grade for unexcused absences “A”, however, “H”s and “T”s will still count against a student.

**Homework (20%)**  Each section covered will have a graded homework assignment in MyStatLab. Each homework assignment is due at midnight of the due date specified in MyStatLab. Students must receive at least a 65% on homework assignments in order to gain access to their quizzes. Homework assignments that are not completed by the due date in MyStatLab may be worked on for full credit for the semester, however, students who do not complete homework assignments by the due date in MyStatLab will fall behind and decrease their chances of success. To avoid technical difficulties, it is recommended that students complete their homework assignments in a computer in the Learning Resource Center. MyCourses will be updated with a student’s current HW Average from MyStatLab after each Test.

**Quizzes (20%)**  Quizzes will be administered in MyStatLab. **Students must receive at least a 65% on each homework assignment that the quiz covers in order to gain access to take each quiz.** In order to avoid technical glitches, students should take quizzes on a campus computer. Unlimited time is given on quizzes. Students will have at least 3 attempts at each quiz just in case there is a technical glitch the first or second time. It is the student’s responsibility to gain and maintain access to MyStatLab as part of being prepared for the course. Since multiple attempts are given and each quiz is open for at least 3 days and the lowest quiz is dropped, no extensions or make-ups will be given even for excused reasons. (In the event that a student misses excessive quizzes due to excused reasons, accommodations could possibly be provided if the student is able to provide proper documentation for all quizzes missed, even the first one).

**In class Proctored Assessments (60%)**  Students must adhere to the calculator policy (see above). There will be a total of 4 assessments administered in class and the dates and topics of these 4 assessments can be found in this syllabus. If a student misses class for excused or unexcused reasons and is unable to complete a Test for any reason at all, the student will receive a zero for the Test. If a student misses the Midterm or Final, then the student must provide the instructor with official, dated and timed documentation with their name on it of the unplanned, unrepeatable and unavoidable event that prevented the student from being able to take the exam during the scheduled time to present to your instructor immediately for possible consideration. Further, the student must demonstrate that he/she made every effort to be in class regardless of the event. Even further, the student must make contact with the instructor within 24 hours of the missed exam. If the student is unable to make themselves available within 24 hours to complete the exam, then the student may not be allowed to make-up the exam. The four assessments are as follows:

- **Test #1** (10%)  If midterm exam score is higher than Test #1 score, the midterm exam will replace Test #1 score.
- **Midterm** (20%)
- **Test #2** (10%)  If final exam score is higher than Test #2 score, the final exam score will replace Test #2 score.
- **Final** (20%)
Scheduled Course Material and Assignments:
Since classes are diverse and move at different speeds, the instructor may change the content and due date of any quiz and the content of any test as long as it benefits the class as a whole. In such an event, the change will be announced in class and via email.

<table>
<thead>
<tr>
<th>Week</th>
<th>Textbook Sections</th>
<th>Assignments/Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.1, 1.2, 1.3, 2.1, 2.2</td>
<td><em>MyMathLab Orientation</em>*</td>
</tr>
<tr>
<td>2</td>
<td>2.3, 2.4, 2.5, 3.1</td>
<td>Cumulative Quiz (1.1 – 1.3, 2.1 – 2.5) due 5/31/16</td>
</tr>
<tr>
<td>3</td>
<td>No Class – 5/30/16</td>
<td>Test #1 (1.1 – 1.3, 2.1 – 2.5) on 6/1/16</td>
</tr>
<tr>
<td>4</td>
<td>3.2, 3.3, 4.1, 4.2</td>
<td>Quiz (3.1 – 3.3) Due 6/12/16</td>
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<tr>
<td></td>
<td></td>
<td>Quiz (4.1, 4.2) Due 6/15/16</td>
</tr>
<tr>
<td>5</td>
<td>5.1, 5.2, 5.3, 5.4</td>
<td>Cumulative Quiz (Ch 3, 4, 5) Due 6/19/16</td>
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<tr>
<td></td>
<td>Review for Midterm</td>
<td></td>
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<tr>
<td>6</td>
<td>6.1, 6.2</td>
<td>Midterm (Ch 1 – 5) on 6/20/16</td>
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<tr>
<td></td>
<td></td>
<td>60%/W/WF Mark – 6/24/16</td>
</tr>
<tr>
<td>7</td>
<td>6.3, 7.1, 7.2, 7.3</td>
<td>Quiz (6.1 – 6.3) Due 7/3/16</td>
</tr>
<tr>
<td>8</td>
<td>No Class – 7/4/16</td>
<td>Cumulative Quiz (Ch 6.1-6.3, 7.1 – 7.4) Due 7/10/16</td>
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<tr>
<td></td>
<td>7.4, 8.1</td>
<td></td>
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<tr>
<td>9</td>
<td>Review before test</td>
<td>Test #2 (6.1 – 6.3, 7.1 – 7.4) on 7/11/16</td>
</tr>
<tr>
<td></td>
<td>9.1, 9.2</td>
<td>Quiz (8.1, 9.1, 9.2) Due on 7/18/16</td>
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<tr>
<td>10</td>
<td>10.1, Review for Final</td>
<td>All Homework Due on 7/19/16</td>
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<tr>
<td></td>
<td></td>
<td>Final Exam 7/20/16</td>
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</tbody>
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**Must complete with a 100% before other assignments will open.

HW and QUIZZES: All quizzes are completed in *MyStatLab* and are due midnight. HW due dates are available in *MyStatLab.*

**TESTS:** All tests are in class using paper and pencil.

**How you should prepare for each class:** Print lecture notes before class. Complete the *MyStatLab* homework for the previous section(s). You should also check your SPC student email several times a week and you should check for any News or Announcements in *MyCourses* so that you can receive important information from your instructor regarding this course.

**How you should study for this class:** Plan on spending at least 10 hours each week studying outside of class, whereby at least 6 of these hours is in a Learning Resource Center. After class and before you begin any homework, you should review the lecture notes. Then, within 24 hours of the class, complete the homework in *MyStatLab* for each section covered in class and use the “Help Me Solve This” and “Show Me An Example” feature when needed. Work each problem over and over again until you can complete the problem accurately twice without any help. Write all homework problems neatly in a notebook so that you can refer back to your work if needed. You may also review the online textbook from “MultiMediaLibrary” in *MyStatLab.* The LRC has computers and a printer available and it is recommended that you use them to complete your homework in *MyStatLab* to minimize any possible glitches that you might encounter. If you do not have time to get a 100% on a homework assignment, make sure that you at least get a 65% on it by the due date in *MyStatLab* so that you can access the quiz.

**If you are absent from class:** Check your SPC email and *MyCourses* News for any communications from your instructor. Refer to the syllabus schedule and contact the instructor by email. If you believe that your absence is excused, obtain dated, official documentation of your situation to provide to your instructor for consideration immediately.
What you can expect from your Instructor:

- I will be firm with details and deadlines.
- I will start class on time at 1p and use the entire class time.
- I will respond within 24 hours to all emails and calls received Monday through Thursday.
- I will return graded material and post grades within one week after turned in.
- I will provide reviews for all tests and exams.

Student Acknowledgement of Responsibilities

As a student in this class, I understand the following:

- I am expected to check on my attendance and grades in MyCourses and contact my instructor by email (via MyCourses) within 3 days if I have a discrepancy.
- I am expected to check my SPC Email and MyCourses News/Calendar several times a week so that I do not miss important communications about this class from my instructor.
- I understand that for every unexcused absence that I have over 2, 1 percentage point will be deducted from my overall grade. Further, every 2nd tardy/leave early/portion of class missed will be counted as one unexcused absence.
- I understand that if I have more than 2 unexcused absences AND have a grade below 70%, then I will be withdrawn with a “WF” at the 60% mark and that this may affect my financial aid.
- I understand that this syllabus is a contract between myself and the instructor. A copy of the syllabus is available in MyCourses for my review at any time and may be printed. I will refer to this syllabus before asking my instructor course related policies and procedures.
- A large portion of my graded assignments are to be completed in MyStatLab. I understand that having access to MyStatLab is my responsibility and should a technical glitch come up, I will read page 2 of the syllabus to determine how it can be handled.

Print Name (First and Last): _____________________________________________________________

Signature: ___________________________________________________________________________ Date: __________________________

Phone Number: ________________________________________________________________________

Is this your first year in college? YES or NO (Circle one)

Is this your first semester at SPC? YES or NO (Circle one)