Spring 2023
Florida State University, Department of Statistics
Main office 214 OSB, phone 850-644-3218.
FSU Police non-emergency: 850-644-1234.
Emergency: 911.

**Course Information**
Name: Introduction to Applied Statistics  
Course Code: STA 2122 Section: 0018  
Credit-hours: 3  
Prerequisites: A grade of “C-“ or better in MAC 1105 College Algebra (or equivalent).  
Special Note: Subsequent credit for STA 5126 is not permitted. No credit given for STA 2122 if a grade of “C-“ or better is earned in STA 2171, STA 3032 or QMB 3200.  
Format: F2F
Class Meeting Days, Times, Locations:  
M W F, 01:20 PM-02:10 PM, OSB_0108  
Students will need to follow the University's current health and safety guidelines when they attend class.  
Final Exam Day & Time: Tuesday May 2nd, 3:00-5:00pm.
Please note that, for each class period, if no students show up within the first 15 minutes, or if there is a 15-minute stretch of time when no students show up after the last student has left, then the rest of the period will be cancelled. The next lecture will begin where the cancelled lecture would have left off, and the next assessment will include the material that would have been taught in the cancelled lecture.

**Instructor Information**
Name: PITSHOU NZAZI  
Email: pn20p@fsu.edu  
You may expect a response from me within two workdays.  
Office Hours & Locations:  
T, 10:00 AM-11:00 AM, OSB_0303.  
If you are unable to come at this time, please email me to set up an appointment.

**Course Access**
- Course website: [https://canvas.fsu.edu](https://canvas.fsu.edu)
- Canvas Support  
  Email: canvas@fsu.edu  
  Phone: 850-644-8004  
  Website: [https://support.canvas.fsu.edu/home/](https://support.canvas.fsu.edu/home/)  
  Hours: 8am-5pm, Mon-Fri  
- Please turn on the course notifications on Canvas by going to Account/Notifications and selecting the Notify immediately option for all of the items under Course Activities.  
- Please check your FSU email, your Canvas Inbox, and the course announcements on Canvas every day.  
- If you communicate with me via email, please use your @fsu.edu account.  
- We will not use Honorlock.

**Course Description**
This course covers Normal distributions, sampling variation, confidence intervals, hypothesis testing, one-way and two-way analysis of variance, correlation, simple and multiple regression, contingency tables and chi-square tests, non-parametric statistics.

The purpose of this course is to prepare students for further study and job preparation in the field of Natural Sciences. It will emphasize understanding of data and interpretation of statistical analyses. It will require students to think of data, and report the results of their analyses, in context.

**Learning Objectives**

This course has been approved to meet FSU’s Liberal Studies **Quantitative and Logical Thinking** requirements and helps you become a critical analyst of quantitative and logical claims.

In order to fulfill the State of Florida’s College mathematics and computation requirement the student must earn a “C–” or better in the course.

By the end of the course, students will demonstrate the ability to:

1. Select and apply appropriate methods (i.e., mathematical, statistical, logical, and/or computational models or principles) to solve real-world problems.
2. Use a variety of forms to represent problems and their solutions.

*The above two competencies will be assessed in the Liberal Studies Quantitative Assessment (LSQA) which includes a written summary of results. The LSQA forms a mandatory ten percent of the course grade. If you do not take it, you will not be permitted to pass the class, regardless of how well you perform on the other assessments. The LSQA will be an online assessment graded for accuracy; two attempts will be allowed; collaboration is not permitted; no internet sources are allowed apart from the course Canvas.*

3. Use descriptive statistics and graphical methods to summarize data accurately.
4. Use inferential statistics to make valid judgments based on the data available.
5. Select the appropriate statistical tools to analyze a particular problem.
6. Describe the goals of various statistical methodologies conceptually.
7. Develop a healthy skepticism toward statistical studies and their results based on a sensible consideration of the techniques employed.

**Required Materials**

- A personal computer, reliable internet connection, and Chrome or Firefox browser.
- A TI-84 Plus or equivalent calculator. We will teach you how to use a TI-84 series calculator, but we cannot promise to be able to help with any other type of calculator.

A textbook is not required for this class. The instructor will provide all required course notes and exercises. Please note that the materials provided by the instructor were put together for your individual use only. While you may share these materials with classmates, we ask that you do not share them with third parties who are not enrolled in this class. If you seek help outside of class, you may allow your helper to see the materials, but please do not allow them to make copies or in any other way take our material. We appreciate your cooperation in protecting our material. Thank you!

**Additional Resource**


**Video/audio recordings**

Please note that any recordings provided by the instructor are the property of Florida State University and are being made available only to the students enrolled in this class. Students are not permitted to share the
Note on Technology-dependent Assessments
This course is technology-dependent. While we will do our best to work with you on technology issues, please be aware that if you take an assessment but we can find absolutely no record of the fact, then we will not be able to give you credit for it. Please do not use Safari when you take assessments on Canvas, please use Chrome or Firefox.

Completing assessments in a timely manner so that you can stay on track
This is a semester-long college course, designed to be taken one step at a time throughout the semester rather than hurriedly over the span of a few days, or a few weeks. We will therefore not allow extensions on due dates during the last two weeks of classes unless you have completed at least eighty percent of the assessments given up to that point, including the LSQA. For example, if the LSQA and nine other assessments have been given by the start of the last two weeks of classes, then you will need to have completed the LSQA and at least seven other assessments in order to receive any extensions on due dates during the last two weeks of classes. Please note that the assessments need to be completed in order. Therefore, an extension on a specific assessment will not be granted if you have prior outstanding assessments. For example, if you request an extension on Assessment 8 but you did not complete Assessment 3, then you will be denied an extension on Assessment 8 but you may receive an extension on Assessment 3. The last day of classes will be the deadline for all assessment submissions, including assessments where extensions were granted, but not including the final assessment.

Grades
Assessments that are not completed will receive a grade of zero. When a makeup is completed, the zero will be replaced with the earned grade. If you believe that the grade you received on an assessment is incorrect, please bring it to my attention within two work days after the grade has been made available to you. If no issues are raised during that time frame, then it will be assumed that the grade is accepted and subsequent requests for a grade review may not be granted.

<table>
<thead>
<tr>
<th>Assessments (Due dates will be provided on Canvas)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Quizzes (OQ):</td>
<td>30%</td>
</tr>
<tr>
<td>- collaboration is allowed and unlimited attempts are allowed for each quiz</td>
<td></td>
</tr>
<tr>
<td>- the lowest two percentage grades will be dropped</td>
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<tr>
<td>Liberal Studies Quantitative Assessment (LSQA):</td>
<td>10%</td>
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<tr>
<td>- collaboration and internet sources (except the course Canvas) are not permitted</td>
<td></td>
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<tr>
<td>- cannot be dropped but 2 timed attempts are allowed</td>
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<tr>
<td>Timed Quizzes (TQ):</td>
<td>65%</td>
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<tr>
<td>- collaboration and internet sources (except the course Canvas) are not permitted</td>
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<tr>
<td>- the One-sample Hypothesis Tests timed quiz cannot be dropped (final exam)</td>
<td></td>
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<tr>
<td>- of the other timed quizzes, the lowest two percentage grades will be dropped</td>
<td></td>
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<tr>
<td>Total</td>
<td>105%</td>
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Pacing Schedule (tentatively schedule in brief)

<table>
<thead>
<tr>
<th>week</th>
<th>Course coverages (# of topics)</th>
<th>Quizzes and Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Jan 9 - Jan 15</td>
<td>Math skills, histograms, segmented bar charts</td>
<td></td>
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<tr>
<td>2: Jan 16 - Jan 22</td>
<td>Summary statistics</td>
<td></td>
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<tr>
<td>3: Jan 23 - Jan 29</td>
<td>simple random sample, Normal distribution</td>
<td></td>
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<tr>
<td>4: Jan 30 - Feb 5</td>
<td>Central limit theorem, empirical rule</td>
<td></td>
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<tr>
<td>5: Feb 6 - Feb 12</td>
<td>One sample mean</td>
<td></td>
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<tr>
<td>6: Feb 13 - Feb 19</td>
<td>One sample mean</td>
<td></td>
</tr>
<tr>
<td>7: Feb 20 - Feb 26</td>
<td>One-way ANOVA, type I / type II errors</td>
<td>LSQA</td>
</tr>
<tr>
<td>8: Feb 27 - Mar 5</td>
<td>Correlation</td>
<td></td>
</tr>
<tr>
<td>9: Mar 6 - Mar 12</td>
<td>Two-way ANOVA, simple linear regression</td>
<td></td>
</tr>
<tr>
<td>10: Mar 13 - Mar 19</td>
<td>Spring break. No Classes</td>
<td></td>
</tr>
<tr>
<td>11: Mar 20 - Mar 26</td>
<td>Simple linear regression</td>
<td></td>
</tr>
<tr>
<td>12: Mar 27 - Apr 2</td>
<td>Multiple linear regression</td>
<td></td>
</tr>
<tr>
<td>13: Apr 3 - Apr 9</td>
<td>Chi-square test of independence</td>
<td></td>
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<tr>
<td>14: Apr 10 - Apr 16</td>
<td>Nonparametric tests</td>
<td></td>
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<tr>
<td>15: Apr 17 - Apr 23</td>
<td>Review, exercises</td>
<td></td>
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<tr>
<td>16: Apr 24 - Apr 30</td>
<td>Reviews, exercises</td>
<td></td>
</tr>
</tbody>
</table>

Grading scale (percent)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>[93, 105]%</td>
</tr>
<tr>
<td>A-</td>
<td>[90, 93]%</td>
</tr>
<tr>
<td>B+</td>
<td>[87, 90)%</td>
</tr>
<tr>
<td>B</td>
<td>[83, 87)%</td>
</tr>
<tr>
<td>B-</td>
<td>[80, 83]%</td>
</tr>
<tr>
<td>C+</td>
<td>[77, 80)%</td>
</tr>
<tr>
<td>C</td>
<td>[73, 77)%</td>
</tr>
<tr>
<td>C-</td>
<td>[70, 73)%</td>
</tr>
<tr>
<td>D+</td>
<td>[67, 70)%</td>
</tr>
<tr>
<td>D</td>
<td>[63, 67)%</td>
</tr>
<tr>
<td>D-</td>
<td>[60, 63)%</td>
</tr>
<tr>
<td>F</td>
<td>[0, 60)%</td>
</tr>
</tbody>
</table>

A request for a grade of “Incomplete” will
~ not be granted if you have completed the coursework, including the assessments that cannot be dropped
and excluding the drops and allowable absences.
~ be granted only if both of the following conditions are satisfied:
(1) the only assessment that you have yet to take is the final assessment, and
(2) your overall average excluding the final assessment is a passing grade (70% or above).

Final Exam Rescheduling Policy

You may not take the final exam before final exams week. Individual students who need to reschedule the
final exam for a different time during final exams week should talk to me about it first to get my approval and
then fill out and follow the instructions on the “Request to Reschedule a Final Examination” form at
The form needs to be submitted to the College of Arts and Sciences before 5pm on the last day of classes.
If you experience a documented emergency that prevents you from observing the above deadline, contact me
as soon as you are able to, and we’ll take it from there.

University Attendance Policy
Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Drop and Withdrawal deadlines are given in the University’s Academic Calendar at https://registrar.fsu.edu/calendar/.

If you are absent for an extended period of time and/or you do not respond to emails from the instructor over an extended period of time, the instructor reserves the right to deny access to assessments or limit the number of allowed attempts until attendance and/or contact is resumed.

Academic Honor Policy
The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy)

Academic Success
Your academic success is a top priority for Florida State University. University resources to help you succeed include tutoring centers, computer labs, counseling and health services, and services for designated groups, such as veterans and students with disabilities. The following information is not exhaustive, so please check with your advisor or the Department of Student Support and Transitions to learn more.

Americans with Disabilities Act
Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course.

Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the Office of Accessibility Services; and
(2) request a letter from the Office of Accessibility Services to be sent to the instructor indicating the need for accommodation and what type; and,
(3) meet (in person, via phone, email, skype, zoom, etc...) with each instructor to whom a letter of accommodation was sent to review approved accommodations.

Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided.

This syllabus and other class materials are available in alternative format upon request.

For the latest version of this statement and more information about services available to FSU students with disabilities, contact the:
Office of Accessibility Services
874 Traditions Way
108 Student Services Building
Florida State University
Sexual Misconduct and Title IX Reporting
As an instructor, I am obliged to report all instances of sexual misconduct and other Title IX issues that I become aware of to the University’s Title IX Director; I cannot hold such information confidential. If you would like to discuss your situation in confidence, you may contact the Victim Advocate Program (https://dos.fsu.edu/vap/), Counseling & Psychological Services (https://counseling.fsu.edu/), the Employee Assistance Program (https://eap.fsu.edu/), University Health Services (https://uhs.fsu.edu/), or pastoral counselors. If you would like to submit a report to the University’s Title IX Director, please go to https://report.fsu.edu/.

Confidential Campus Resources
Various centers and programs are available to assist students with navigating stressors that might impact academic success. These include the following:

<table>
<thead>
<tr>
<th>Victim Advocate Program</th>
<th>Counseling and Psychological Services</th>
<th>University Health Services</th>
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<tbody>
<tr>
<td>University Center A, Rm. 4100 (850) 644-7161 Available 24/7/365 Office Hours: M-F 8-5 <a href="https://dsst.fsu.edu/vap">https://dsst.fsu.edu/vap</a></td>
<td>Askew Student Life Center, 2nd floor 942 Learning Way (850) 644-8255 <a href="https://counseling.fsu.edu/">https://counseling.fsu.edu/</a></td>
<td>Health and Wellness Center (850) 644-6230 <a href="https://uhs.fsu.edu/">https://uhs.fsu.edu/</a></td>
</tr>
</tbody>
</table>

Disaster
At times of severe weather or other disasters, please check your FSU email, your text messages, the Seminole Safe App and FSU Alerts (https://alerts.fsu.edu/) as often as you can to keep yourself informed. In the absence of internet access, you may call 850-644-4636 for updates. Check for the latest information every day before you leave home so that you don’t miss any last minute announcements. If the University closes due to a disaster, we will all be informed via the above means, and classes and office hours will be automatically cancelled even if I don’t announce it. As long as the University remains open, classes will still be on. However, please practice safety first. If it will be unsafe or impracticable for you to come to class or complete an assignment due to the effects of a disaster, please do not attempt to do so. You will not be penalized, we will work with you.

You can sign up to receive alerts via SMS text messages here: https://emergency.fsu.edu/services/fsu-alert-emergency-notification-warning-system/fsu-alert-sms-text-messages. See here for other ways in which FSU delivers warnings: https://emergency.fsu.edu/services/fsu-alert-emergency-notification-warning-system.

Syllabus Change Policy
Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

Classes Subject to HB233 Recording
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In this class, consistent with state law and university policy, students are permitted to make recordings of class lectures for personal use only. As noted, sharing, posting, or publishing classroom recordings may subject you to honor code violations and legal penalties associated with theft of intellectual property and violations of other state law. Moreover, students and educators have expressed concern that recording classroom activities may negatively impact the learning experience for others, especially in classes that involve questions, discussion, or participation. To protect a learning environment in which everyone feels free to experiment with ideas, we ask you refrain from recording in ways that could make others feel reluctant to ask questions, explore new ideas, or otherwise participate in class. Students must monitor their recording so that they do not include participation by other students without permission. Students with disabilities will continue to have appropriate accommodations for recordings as established by the Office of Accessibility Services.