Core Curriculum Cover Page

Directions: Each course submitted for review by the General Education Oversight Committee must include: 1) completion of all relevant items on this form; 2) a course syllabus that includes the appropriate learning outcomes and assessments; 3) any other information about the course that would assist the evaluation. **All courses considered for the new core must be submitted to GEOC for evaluation by April 22.**

Core Area (check the appropriate category for the course):

☐ Communication   X Mathematics   ☐ Life and Physical Sciences

☐ Language, Philosophy, Culture   ☐ Creative Arts   ☐ American History

☐ Government/Political Science   ☐ Social /Behavioral Science   ☐ Component Area Option

Rationale: Please provide a brief rationale for the course which explains how the course being proposed fits the description of this component __

Math 1342 belongs to the TCCCN. We regularly encounter transfer students who have taken the course. UTPB faculty differ whether this transfer is preferable or equivalent to the MATH offerings in General Education for their degree. Adding the course to our curriculum allows disciplines to formalize its role. That is, each discipline can now include or exclude it in degree plans. Math 1342 will now be available at UTPB for those programs that desire an introduction to Statistics at the general education level.

Course Type: ☐ Existing Course   ☐ Existing Core Course   X New Course

Course Prefix and Number: __Math 1342_____

Dept/College: ____Mathematics_____

Course Title: __Elementary Statistics_____

Course Catalog Description: __ Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing.

Name and e-mail address for person who can answer questions about the course: _____

Wendy___Padilla_____ padilla_w@utpb.edu_____

_____Paul ted_____ 3/27/20____
Departmental Approval/Date

_____ 3/31/20___
☒ *GEOC Approval/Date*

_____
☐ *GEOC Rejection/Date*

_____
☐ *GEOC Revision Request/Date (Explain revision required and return for review date)* _____

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MATH 1342-001: Elementary Statistics
Fall 2020   Tues/Thus 8:00-9:15 am

Instructor: Wendy Padilla
Room:
Office: ST 1248
Office Hours:
Contact Info: padilla_w@utpb.edu

Materials: Required: MyMathLab code, purchased at the Bookstore or online
Recommended: The Artand Science of Learning from Data, 4th edition by Agresti and
Franklin

Prerequisite: Two years of high school algebra, one year of high school geometry, and satisfactory
score on placement examination or completion/corequisite of MATH 0399.

Description: Collection, analysis, presentation and interpretation of data, and probability. Analysis
includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use
of appropriate technology is recommended.   (Texas Higher Education Coordinating Board)

Measurable Outcomes:
Upon successful completion of this course, students will:
Explain the use of data collection and statistics as tools to reach reasonable conclusions.
Recognize, examine and interpret the basic principles of describing and presenting data.
Compute and interpret empirical and theoretical probabilities using the rules of probabilities and
combinatorics.
Explain the role of probability in statistics.
Examine, analyze and compare various sampling distributions for both discrete and continuous random
variables.
Describe and compute confidence intervals.
Solve linear regression and correlation problems.
Perform hypothesis testing using statistical methods.   (Texas Higher Education Coordinating Board)

Topics:
Mean, median, mode, standard deviation, and quartiles
Graphical respresentations of data
Binomial and normal distributions
Central Limit Theorem
Confidence intervals
Hypothesis tests
Linear regression models

Methods of assessment: The expected learning outcomes for the class will be assessed through exams,
homework, quizzes, and/or active learning activities.

Time Spent Outside of Class: The general rule of thumb is that for each hour spent in class, a
student should spend 2-3 hours of study time.
https://www.collegeparentcentral.com/2010/02/is-your-college-student-investing-enough-time-st
udying/

Quizzes: We will be learning the material this semester using flipped instruction. You will be asked to watch a video lecture and fill out the powerpoint skeleton notes over the material that was watched. You will take a quiz over the material that was covered the next time you class over that material. If you are absent, you must come by my office during office hours to take the quiz no later than review day.

In-Class Activities and/or Homework: Class time will be used for active learning activities. Classroom activities are expected to be your work entirely. You will be turning one I choose within 5 minutes of the start of class on review day. Most days, homework will be assigned after class in order to solidify what has been learned in class. It will close right before the next time you come to class. Participation in the in-class activities and on the homework is required in order for you to succeed in the exams.

Tests: Tests will be announced at least a week in advance. If you have questions on misgrading, you must speak to me about it **within 1 week** after I have given back grades. You will lose all privileges to pose concerns thereafter. You are NOT allowed to go to the bathroom during tests.

Folder Check: Folders will be taken up at the beginning of class on review days and possibly test days to be graded. Please see *Folder Check Requirements* under Getting Started for Rubric on how I will grade. The average of the 4 Folder Checks will count as a test grade that would only be used for the second computation of your grade.

Attendance: Attendance is mandatory in order for you to learn the material. You are required to stay the whole time in order for the attendance to count. If you are absent for any reason, you are responsible for all make-up work, notes, turning in homework, or taking a test the next time you come to class. Please find a reliable friend from whom to get your notes. **If you are absent on test day, you must notify me prior to and give proper documentation.**
You will be allowed 3 absences. **Any absence thereafter will constitute in a reduction of 1.5 points of your final grade.**
I strongly encourage you to schedule any doctor's visits around class hours, as these absences would still count against your attendance.

You may check your attendance in Canvas. You have one week to dispute attendance discrepancies. Thereafter, you lose this opportunity. It is your responsibility to let me know that you are present when you arrive late to class, and I have already taken attendance.

Officially School Approved Trips: Students must give proper documentation and prior notification. The student will be responsible for the material missed.

Grading:
The overall grade is calculated in **two steps.** First, the base grade is computed solely from tests:
- Test 1: 20%
- Test 2: 20%
- Test 3: 20%
- Test 4: 20%
- Final Exam 20%

This grade corresponds to letter grades in the usual manner: 90% -A, 80%-89% B, etc.

Once the base is computed, a second score is used for curving:
For Students whose grades on tests is passing, a second computation is performed:
- Homework 20%
- Quizzes: 10%
- Tests: 60%

-     Final Exam 10%
This second score may be used to raise the base grade. It will never be used to lower a base grade.
Please note: the grade that will appear in MyLab will be your **base grade**.

All students will be required to take the comprehensive final exam.

You must earn your grade in my class. Do not expect an A, for example, if you have an 89.49 in my class.

Extra Credit: Opportunities for extra credit will be announced throughout the semester.   If you are not in class when extra credit is offered, you lose the opportunity to do that extra credit.   It is important that you take advantage of any extra credit I offer because I do not do curves or corrections on tests.

Academic Honesty: Unless otherwise stated in class, you may receive help from other people and different resources on homework.   Unless otherwise stated, tests and quizzes are expected to be your work entirely.   The first offense will result in an automatic zero on that assignment. The second offense will immediately result in a failing grade for the course. Cheating includes giving false information on absences related to officially school approved trips.

Civility in the classroom: Students are expected to assist in maintaining a classroom environment which is conducive to learning.   In order to assure all students have an opportunity to gain from time spent in class, troublesome behavior will not be tolerated.   This includes the use of cellular phones, making offensive remarks, reading newspapers, sleeping, bad attitudes, or engaging in any other form of distraction.   The instructor is authorized to take such steps as are necessary when the behavior of a student disrupts the normal classroom procedure.   Instructors may remove a student for the single class session.   If disruptive behavior becomes continuous and/or serious, the instructor may begin disciplinary proceedings.

You are not allowed to use phones, I Pads, laptops, or any other devices in class for other purposes except those allowed by the instructor.

If you have an emergency, and you must read or respond to a text or answer a phone call, you are expected to to go outside of the classroom.

Phone in class
First Offense   **HW deducted by 50 pts**
Second Offense **HW replaced by a 0**
Third Offense   **HW replaced by a 0 and disqualification from the final exam to replace a low test grade.**

American Disabilities Act

Students with Disabilities: The University of Texas of the Permian Basin in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act provides "reasonable accommodations" to students with disabilities. Any student with a disability who is requesting an accommodation for this course must provide the instructor with official documentation in the form of a letter from the ADA Officer for Students. Only those students who have officially documented a need for an accommodation will have their request honored. **Adapted from UTSA ADA syllabus statement.**

ADA Officer for Students: Mr. Paul Leverington
Address: Mesa Building 4243 /4901 E. University, Odessa, TX 79762
Voice Telephone: 432-552-4696

Email: ada@utpb.edu

Tutoring: Tutoring is available from the Student Success Center (MB 2215).   552-3350.

Math 1342
Elementary Statistics
Semester Plans*   *subject to change as deemed by instructor

Chapter 1: Statistics: The Art and Science of Learning from Data(1 days).

Chapter 2: Exploring Data with Graphs and Numerical Summaries (4 days).

Chapter 3: Association: Contingency, Correlation, and Regression (4 days).

Chapter 4: (Optional).

Chapter 5: Probability, Probability Distributions and Sampling Distributions (4 days).

Chapter 6: Probability Distributions (3 days).

Chapter 7: Sampling Distributions (4 days).

Chapter 8: Statistical Inference: Confidence Intervals (4 days).

Chapter 9: Statistical Inference: Significance Tests about Hypotheses (5 days).

Chapter 10: Comparing Two Groups (3 days).

Math 1342 Core Curriculum Assessment Statement

Quantitative Literacy definition, as described by the AACU

Also known as Numeracy or Quantitative Reasoning, is a "habit of mind", competency, and comfort in working numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can creata sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate)

The following problems were taken from MyLab from the textbook Statistics: The Art and Science of Learning from Data, 4/E by Agresti, Franklin, and Klingenberg

Problem 1	Assesses representation and application/analysis
Problem 2	Assesses interpretation, application/analysis
Problem 3	Assesses interpretation, calculation, assumptions, application/analysis, and communication

Critical thinking and Communication

The problem given can be used to assess both critical thinking and communication skills. In order to answer the question, the student must clarify, collect, consider and conclude based on the data given.

In addition, communication is proven by presenting the final answer in a manner relevant to the original problem.

1. Assume that 67 fatal shark attacks were recorded in a large body of water over a 9 year span, with 2 being reported in Region A, 3 in Region B, 4 in Region C, 20 in Region D, 13 in Region E, 7 in Region F, 5 in Region G and 5 in Region H. The rest occurred in other regions. Complete parts a through c below.

    a. Construct the frequency table for the regions of the reported fatal shark attacks.

    (Type integers or decimals rounded to one decimal place as needed.)

Region	Frequency	Percentage (%)
A	_____	_____
B	_____	_____
C	_____	_____
D	_____	_____
E	_____	_____
F	_____	_____
G	_____	_____
H	_____	_____
Other	_____	_____
Total	_____	_____

    b. Identify the modal category. Choose the correct answer below.

    ○ **A.** Region H

    ○ **B.** Region D

    ○ **C.** Region A

    ○ **D.** Region E

    ○ **E.** Region Other

    c. Describe the distribution of fatal shark attacks across the regions. Choose the correct answer below.

    ○ **A.** The frequency of fatal shark attacks seems to be cyclical.

    ○ **B.** The number of fatal shark attacks in a given region is likely random.

    ○ **C.** Fatal shark attacks happen with approximately the same frequency in all of the regions.

    ○ **D.** Region D and Region E are the single regions with the highest number of fatal shark attacks.

2. The following dot plot represents the sugar values (in grams) of a certain breakfast cereal. Complete parts a and b below.
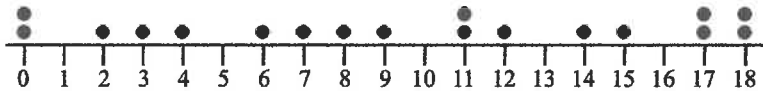
a. Indentify the minimum and maximum sugar values.

Minimum = _____ g
Maximum = _____ g

b. Which sugar outcomes occur most frequently? What are these values called?

The outcomes that are most frequent are _____.
(Use ascending order.)

These values are called the (1) _____

(1) ○ range.
    ○ mean.
    ○ median.
    ○ mode.

3. For the response variable y, the selling price in thousands of dollars, and the expanatory variable x, the size of the house in thousands of square feet, $\hat{y} = 9.7 + 77.3x$.
   a. How much do you predict a house would sell for if it has (i) 2000 square feet, (ii) 3000 square feet?
   b. Using results in part a, explain how to interpret the slope.
   c. Is the correlation between these variables positive or negative? Why?
   d. One home that is 3000 square feet sold for $300,000. Find the residual, and interpret.

a. (i) The predicted selling price of a house that has 2000 square feet is $ _____ .

(ii) The predicted selling price of a house that has 3000 square feet is $ _____ .

b. Which of the following statements best interprets the slope?

○ A. For every increase of 1000 square feet to house size, the predicted selling price increases by $77,300.

○ B. For every increase of $1000 in selling price, the predicted size of the house increases by 77,300 square feet.

○ C. For every increase of 1000 square feet to house size, the predicted selling price decreases by $77,300.

○ D. For every increase of $1000 in selling price, the predicted size of the house decreases by 77,300 square feet.

c. The correlation is (1) _____ because the selling price tends to (2) _____ as the house size increases.

d. The residual is $ _____ .

Which of the following statements best interprets this residual?

○ A. The selling price of this particular house is less than the predicted value by the amount of the residual.

○ B. The residual is the amount the predicted selling price of houses increases for each increase of 1000 square feet.

○ C. The residual is the predicted selling price for houses with zero square feet.

○ D. The selling price of this particular house is greater than the predicted value by the amount of the residual.

(1) ○ negative   (2) ○ decrease
    ○ positive   ○ increase

1. In a clinical study, 4400 healthy subjects aged 18-49 were vaccinated with a vaccine against a seasonal illness. Over a period of roughly 28 weeks, 23 of these subjects developed the illness. Complete parts a through e below.
   <u>Click here to view the table of standard normal cumulative probabilities (page 1).</u>[1]
   <u>Click here to view the table of standard normal cumulative probabilities (page 2).</u>[2]

   a. Find the point estimate of the population proportion that were vaccinated with the vaccine but still developed the illness.

   The point estimate is _____ .
   (Round to five decimal places as needed.)

   b. Find the standard error of this estimate.

   The standard error of this estimate is _____ .
   (Round to five decimal places as needed.)

   c. Find the margin of error for a 95% confidence interval.

   The margin of error is _____ .
   (Round to five decimal places as needed.)

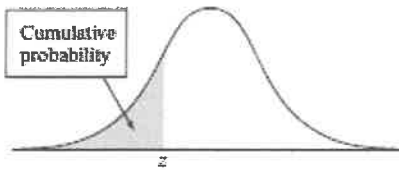   **d.** Construct the 95% confidence interval for the population proportion. Interpret the interval.

   The 95% confidence interval for the population proportion is (_____ , _____) .
   (Round to five decimal places as needed.)

   Interpret the interval. Choose the correct answer below.

   ○ **A.** With 95% confidence, the limits of the confidence interval contain the proportion of healthy people aged 18-49 who are vaccinated with the vaccine but still develop the illness.

   ○ **B.** The proportion of all people who are vaccinated with the vaccine but still develop the illness falls within the limits of the confidence interval 95% of the time.

   ○ **C.** The proportion of healthy people aged 18-49 who are vaccinated with the vaccine but still develop the illness falls within the limits of the confidence interval 95% of the time.

   ○ **D.** With 95% confidence, the limits of the confidence interval contain the proportion of healthy people aged 18-49 who are vaccinated with the vaccine who do not develop the illness.

   e. Is it safe to conclude that fewer than 1% of all the people aged 18-49 vaccinated with the vaccine will develop the illness? Explain by using the results from part d.

   ○ **A.** No, it should not be concluded, since the lower limit of the confidence interval is greater than 0.01.

   ○ **B.** Yes, it can be concluded, since the lower limit of the confidence interval is less than 0.01.

   ○ **C.** Yes, it can be concluded, since the upper limit of the confidence interval is less than 0.01.

   ○ **D.** No, it should not be concluded, since the upper limit of the confidence interval is greater than 0.01.

1: Standard Normal Cumulative Probabilities (Page 1)
_____

Cumulative probability for z is the area under the standard normal curve to the left of z

z	.00
−5.0	.000000287
−4.5	.00000340
−4.0	.0000317
−3.5	.000233

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
−3.4	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
−3.3	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0003
−3.2	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0005	.0005	.0005
−3.1	.0010	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0007	.0007
−3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
−2.9	.0019	.0018	.0018	.0017	.0016	.0016	.0015	.0015	.0014	.0014
−2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
−2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
−2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
−2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
−2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
−2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
−2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
−2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
−2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
−1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
−1.8	.0359	.0351	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
−1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
−1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
−1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
−1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0721	.0708	.0694	.0681
−1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
−1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
−1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
−1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
−0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
−0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
−0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
−0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
−0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
−0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
−0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
−0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
−0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
−0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
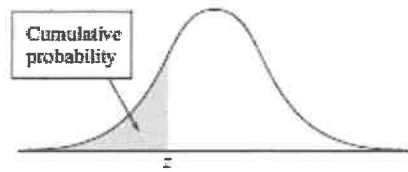
2: Standard Normal Cumulative Probabilities (Page 2)

Cumulative probability

Cumulative probability for z is the area under the standard normal curve to the left of z

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.5040	.5080	.5120	.5160	.5199	.5239	.5279	.5319	.5359
0.1	.5398	.5438	.5478	.5517	.5557	.5596	.5636	.5675	.5714	.5753
0.2	.5793	.5832	.5871	.5910	.5948	.5987	.6026	.6064	.6103	.6141
0.3	.6179	.6217	.6255	.6293	.6331	.6368	.6406	.6443	.6480	.6517
0.4	.6554	.6591	.6628	.6664	.6700	.6736	.6772	.6808	.6844	.6879
0.5	.6915	.6950	.6985	.7019	.7054	.7088	.7123	.7157	.7190	.7224
0.6	.7257	.7291	.7324	.7357	.7389	.7422	.7454	.7486	.7517	.7549
0.7	.7580	.7611	.7642	.7673	.7704	.7734	.7764	.7794	.7823	.7852
0.8	.7881	.7910	.7939	.7967	.7995	.8023	.8051	.8078	.8106	.8133
0.9	.8159	.8186	.8212	.8238	.8264	.8289	.8315	.8340	.8365	.8389
1.0	.8413	.8438	.8461	.8485	.8508	.8531	.8554	.8577	.8599	.8621
1.1	.8643	.8665	.8686	.8708	.8729	.8749	.8770	.8790	.8810	.8830
1.2	.8849	.8869	.8888	.8907	.8925	.8944	.8962	.8980	.8997	.9015
1.3	.9032	.9049	.9066	.9082	.9099	.9115	.9131	.9147	.9162	.9177
1.4	.9192	.9207	.9222	.9236	.9251	.9265	.9279	.9292	.9306	.9319
1.5	.9332	.9345	.9357	.9370	.9382	.9394	.9406	.9418	.9429	.9441
1.6	.9452	.9463	.9474	.9484	.9495	.9505	.9515	.9525	.9535	.9545
1.7	.9554	.9564	.9573	.9582	.9591	.9599	.9608	.9616	.9625	.9633
1.8	.9641	.9649	.9656	.9664	.9671	.9678	.9686	.9693	.9699	.9706
1.9	.9713	.9719	.9726	.9732	.9738	.9744	.9750	.9756	.9761	.9767
2.0	.9772	.9778	.9783	.9788	.9793	.9798	.9803	.9808	.9812	.9817
2.1	.9821	.9826	.9830	.9834	.9838	.9842	.9846	.9850	.9854	.9857
2.2	.9861	.9864	.9868	.9871	.9875	.9878	.9881	.9884	.9887	.9890
2.3	.9893	.9896	.9898	.9901	.9904	.9906	.9909	.9911	.9913	.9916
2.4	.9918	.9920	.9922	.9925	.9927	.9929	.9931	.9932	.9934	.9936
2.5	.9938	.9940	.9941	.9943	.9945	.9946	.9948	.9949	.9951	.9952
2.6	.9953	.9955	.9956	.9957	.9959	.9960	.9961	.9962	.9963	.9964
2.7	.9965	.9966	.9967	.9968	.9969	.9970	.9971	.9972	.9973	.9974
2.8	.9974	.9975	.9976	.9977	.9977	.9978	.9979	.9979	.9980	.9981
2.9	.9981	.9982	.9982	.9983	.9984	.9984	.9985	.9985	.9986	.9986
3.0	.9987	.9987	.9987	.9988	.9988	.9989	.9989	.9989	.9990	.9990
3.1	.9990	.9991	.9991	.9991	.9992	.9992	.9992	.9992	.9993	.9993
3.2	.9993	.9993	.9994	.9994	.9994	.9994	.9994	.9995	.9995	.9995
3.3	.9995	.9995	.9995	.9996	.9996	.9996	.9996	.9996	.9996	.9997
3.4	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9998
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09

z	.00
3.5	.999767
4.0	.9999683
4.5	.9999966
5.0	.999999713

Section 4.2 "Good and Poor Ways to Sample" Assignment

You will look for 1 example in real-life data where one of the three types of bias has occurred in sample surveys.

- Last names A-I will find an example when sampling bias has occurred.

- Last names J-Q will find an example when nonresponse bias has occurred.

- Last names R-Z will find an example when response bias has occurred.

You cannot use any of the examples discussed in the book or in class.

A handout of your findings must include:

The bias you were assigned, explained in your own words.

An explanation of the statistic in your own words. (Do not plagiarize.)

Answer the following questions:

How could they have corrected the statistical procedure?

If they had corrected the statistical procedure, what do you think the results would have been and why?

A copy of all the original sources from where you obtained your data.

You will present your findings to the class. (Max 5 minutes per student) At least one sheet as a visual aide is required.

You must come by my office during my office hours either on xxxxxxxx to give me what you plan on presenting in class.

I will use the following rubric to grade you:

- Assignment requirements (50 pts)

    o Followed directions and answered all questions

- Organization (30 pts)

- Vocal delivery (20 pts)