

Syllabus: MATH/STAT 3379.05 Statistical Methods In Practice, Spring -2018

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| Instructor: | Ram C. Kafle, Ph.D. |
| Contact: | rck020@shsu.edu, (936-294-3925) |
| Class Hours: | MWF 10:00 AM - 10:50 AM in LDB 415 |
| Office Hours: | MWF 11:00 AM - 12:30 PM in LDB 439F or by appointment |
| Supplemental Instructor: | Xuelian Gao (xxg006@shsu.edu) |

Textbook and Materials:

Introductory Statistics 10th Edition by Neil A. Weiss; ISBN: 9780321989178

Course Objectives:

The learning outcomes for this course shall include but not be limited to the following:

1. Statistics as the science of learning from data and its use in decision making to everyday real world problems.
2. An appreciation of the role of the computers in statistical data analysis.
3. An understanding of the meanings of various descriptive statistics.
4. Develop proficiency in solving various probability problems.
5. Gain an understanding and be able to apply the Central Limit Theorem.
6. A collection of statistical methods (point estimation, confidence interval, hypothesis testing and simple linear regression) for analyzing and interpreting the data and an understanding of the reasoning for statistical inference.

Course Description:

Introduction to Statistics, organization and description of data, basic probability principles, some discrete and continuous probability distributions, sampling distribution, point estimation, confidence interval estimation, hypothesis testing, small sample inferences, comparing two treatments, and simple linear regression. We will focus on the real world problems from different field such as medical sciences, social sciences, life sciences, business, & engineering among others to provide necessary background on data analysis techniques. We will spend ample amount of time in clarifying the basic concepts by illustrating varieties of examples.

Quizzes:

Quizzes are given at the beginning of the quiz day for about 10-15 minutes. The quizzes will be closed book and closed notes. There will be no make-up quizzes. The lowest one quiz grade will be dropped. Please refer to the academic calendar below for quiz dates.

Homework:

Homework problems offer practices for applying course materials and it is an effective way for mastering the course materials. Homework will be assigned through MyStatLab inside BB. Homework from text and homework based on SPSS will also be assigned for each chapter. Your quizzes will be based on these homework problems. Late homework will not be entertained.

Exams:

Three midterms (15% each) and a cumulative final (compulsory) will be given during the semester. The cumulative final will carry 20% of the total grades. The lowest one midterm grade will be replaced by final if your final percentage grade is greater than lowest midterm grade. Refer to the Academic Calendar on last page for tentative exam dates.

Project:

The Project will be assigned based on the real world data and will be due on the last day of the class. The project will be graded based on the statistical analysis and clarity in reporting. The detail descriptions of the project will be posted in Blackboard during the mid-semester.

Attendance:

Class attendance is extremely important to succeed in this course. Roll will be taken at class meetings periodically. Two percentages will be awarded to the overall score for those students having NO more than 3 absences in the entire semester. Factors like class participation and obeying all the classroom rules are also considered for these two extra percentages. You are responsible to cover or collect the course materials for any class you missed.

Grading Policy:

| | |
|----------------|------------------|
| Homework | 10 % |
| Quizzes | 15 % |
| Project | 10% |
| Three Midterms | 45 % (15 % each) |
| Final Exam | 20 % |
| Total | 100 % |

Grading Scale:

| | |
|--------------|---|
| 90% or above | A |
| 80%-89% | B |
| 70%-79% | C |
| 60%-69% | D |
| Below 60% | F |

An Offer Too Good to Refuse:

The math tutoring program provides small group and one-on-one tutoring for students seeking help in math and statistics courses. For current hours and schedule, visit: www.shsu.edu/asc
You can also take the advantages of the SPSS help session that will be announced soon in the class.

Important Dates:

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|---|--------------------|
| Semester | Jan 17- May 4 |
| Final Exam Week | May 07- May 10 |
| Last day to drop without a Q grade and receive 100% refunds | Feb 01 |
| Last day to drop with a Q grade | April 06 |
| Spring Recess | March 12- March 16 |

Classroom Etiquette:

Classroom behavior that interferes with (a) the instructors ability to conduct the class or (b) the ability of students to benefit from instruction is not acceptable. Examples of such behaviors include routinely entering the class late or departing early; use of beepers, cellular phones, or other electronic devices; repeatedly talking in class without being recognized. If a student must carry a beeper/cell phone to class, prior notice and approval of the instructor is required.

Make up Exam Policy:

Make-up exams will only be given for excused absences. Reasons for excused absences include documented illness, deaths in the immediate family and other documented crises, call to active military duty, court-imposed legal obligations (e.g., jury duty and subpoenas), religious days, special requirements of other courses and university sponsored events (e.g., performances, games/meets, judging trips, field trips), and severe weather conditions. Students must notify their instructors in writing of scheduled absences (for approved reasons as noted above) at the beginning of each academic term. Pointing out specific conflicts with scheduled examinations or other scheduled assignments/activities should be part of this notification. In the event of an emergency unscheduled absence (as described above), students must contact their instructors as soon as possible and provide documentation.

Academic Dishonesty:

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. The university policy and procedures in case of alleged academic dishonesty is explained in Academic Policy Statement 810213:

<http://www.shsu.edu/dotAsset/728eec25-f780-4dcf-932c-03d68cade002.pdf>

Incomplete Grade Policy:

An "X" grade indicates incomplete coursework and may be awarded students. See full policy at <http://www.shsu.edu/gradcat/scholasticrequirements.html>

Student Disability Policy:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. See the university policy at:
<http://www.shsu.edu/dotAsset/7ff819c3-39f3-491d-b688-db5a330ced92.pdf>

Religious Holidays:

University policy states that a student who is absent from class for the observance of a religious holiday must be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. Students must be excused to travel for observance of a religious holiday. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing concerning the holy day(s) and the travel involved. The instructor should provide the student with a written description of the deadline for the completion of missed exams or assignments. See the university policy for religious holidays at:
<http://www.shsu.edu/dotAsset/0953c7d0-7c04-4b29-a3fc-3bf0738e87d8.pdf>

Academic Policy Manual:

For a complete listing of the university policy, see
<http://www.shsu.edu/dept/academic-affairs/aps/aps-students.html>

Academic Calendar:

| | January | February | March | April | May |
|------|-----------|------------|------------------|--------------|-----------------------|
| Mon | | | | 2 | |
| Tue | | | | | |
| Wed | | | | 4 | 2 |
| Thur | | | | | |
| Fri | | 2 (Quiz) | 2 (Quiz) | 6(Quiz) | 4 |
| Mon | | 5 | 5 | 9 | 7(Final; 10:30-12:30) |
| Tue | | | | | |
| Wed | | 7 | 7 | 11 | |
| Thur | | | | | |
| Fri | | 9 (Quiz) | 9 (Quiz) | 13 (Quiz) | |
| Mon | | 12 | Break | 16 | |
| Tue | | | | | |
| Wed | 17 | 14 | Break | 18 | |
| Thur | | | | | |
| Fri | 19 | 16 (Quiz) | Break | 20(Quiz) | |
| Mon | 22 | 19 | 19 | 23 | |
| Tue | | | | | |
| Wed | 24 | 21 | 21 | 25 | |
| Thur | | | | | |
| Fri | 26 (Quiz) | 23(Test-I) | 23 (Quiz) | 27(Test-III) | |
| Mon | 29 | 26 | 26 | 30 | |
| Tue | | | | | |
| Wed | 31 | 28 | 28(Test-II) | | |
| Fri | | | 30(Good Fri-day) | | |