

Syllabus: STAT 4374.01 Regression Modeling and Analysis, Spring -2018

Instructor:	Ram C. Kafle, Ph.D.
Contact:	rck020@shsu.edu, (936-294-3925)
Class Hours:	MW 12:30 PM - 1:50 PM in LDB 407
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:

Regression Analysis by Example Fifth Edition by Chatterjee and Hadi; ISBN: 9780470905845

Course Objectives:

Upon completion of this course, students are expected to be able to understand the basic concepts, theory and methodology for simple and multiple linear regression models, and their diagnostics and remedial measures. Students are expected to develop critical thinking for statistical modeling in different real life context in which they select appropriate linear regression model and validate it. Students should be capable of implementing the regression methods in statistical software (R and SAS), interpret outputs, and report analysis results.

Course Description:

Topics to be covered include: simple linear regression, multiple regression, diagnostics and remedial measures, regression models for quantitative and qualitative predictors, multi-collinearity and its effects, model selection, validation, and diagnostics measures, identifying influential cases. Implementation of statistical methods in the statistical software will be covered for all topics. Examples will form an important part of the lectures. Problem sets will focus on conducting data analyses and reporting the results.

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 from text and homework based on statistical software will be assigned for each chapter. Some additional homework problems may be assigned during the lecture based on the content of the course materials. Late homework will not be entertained.

Exams:

Two midterms and a cumulative final (compulsory) will be given during the semester. The portion of the materials that are covered in the midterm exam will be specified a week in advance of the exam. The final exam will cover the entire semester of work. Refer to the academic calendar at the last page of this syllabus 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	15 %
Quizzes	15 %
Project	10%
Two Midterms	40 % (20 % each)
Final Exam	20 %
Total	100 %

Grading Scale:

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

Important Dates:

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					
Mon		5	5	9	7(Final; 1:00-3:00)
Tue					
Wed		7	7	11	
Thur					
Fri					
Mon		12	Break	16	
Tue					
Wed	17	14	Break	18	
Thur					
Fri					
Mon	22	19	19	23(Test-II)	
Tue					
Wed	24	21	21	25	
Thur					
Fri					
Mon	29	26(Test-I)		30	
Tue					
Wed	31	28	28		
Fri					