Instructor: Prof. Wang

Textbook: Applied Linear Regression Models by Kutner, Nachtsheim and Neter (4th Edition); McGraw-Hill. ISBN 0-07-238691-6.

Prerequisites: Math 333 with a grade of C or better or Math 341 with a grade of C or better.

Location and Time to Meet: Kupfrian Hall 107. Every Monday 6:00 pm-8:50 pm from Sep,3,2024 to Dec,21,1024

Grading Policy: The final grade in this course will be determined as follows:

▪ **Homework:**	**30%**
▪ **1 Midterm Exam:**	**30%**
▪ **Final Exam:**	**40%**

Your final letter grade will be based on the following tentative curve.

A	**90-100**	**C**	**68-74**
B+	**85-89**	**D**	**50-67**
B	**80-84**	**F**	**0-49**
C+	**75-79**		

Drop Date: Please note that the University Drop Date **Nov 11, 2024** deadline will be strictly enforced.

Homework Policy: Homework problems will be assigned in class.

Attendance: Attendance at all classes will be recorded and is **mandatory**. Please make sure you read and fully understand the Department's **Attendance Policy**. This policy will be **strictly** enforced.

Makeup Exam Policy: There will be **NO MAKE-UP EXAMS** during the semester. In the event the Final Exam is not taken, under rare circumstances where the student has a legitimate reason for missing the final exam, a makeup exam will be administered by the math department. In any case the student must notify the **Math Department Office and the Instructor** that the exam will be missed and present written verifiable proof of the reason for missing the exam, e.g., a doctors note, police report, court notice, etc., clearly stating the date AND time of the mitigating problem.

Further Assistance: For further questions, students should contact their Instructor. All Instructors have regular office hours during the week. These office hours are listed at the link above by clicking on the Instructor's name. Teaching Assistants are also available in the math learning center.

Cellular Phones: All cellular phones and beepers must be switched off during all class times.

MATH DEPARTMENT CLASS POLICIES LINK

All DMS students must familiarize themselves with and adhere to the Department of Mathematical Sciences Course Policies, in addition to official university-wide policies. DMS takes these policies very seriously and enforces them strictly. For DMS Course Policies, please **click here**.

Sep, 2, 2024	M	**Labor Day**
Nov, 11, 2024	M	**Last Day to Withdraw** from this course
Nov, 28, 2024	Thursday	Thanksgiving Recess, no classes
Dec, 1, 2024	Sunday	Thanksgiving Recess, no classes
Dec, 12, 2024	Thursday	Reading Day
Dec, 15-21, 2024	Friday-Saturday	Final Exams

COURSE OUTLINE:

Course Outline

Date	Lecture	Chapter	Topic	Assignment
Week 1 09/09	1	Chapter 1	Simple Linear Regression Model with distribution of error terms unspecified, Normal Error Regression Model	
Week 2 09/16	2	Chapter 2	Inferences Concerning Regression Parameters Interval Estimation of mean response Prediction of New Observation	
Week 3 09/23	3	Chapter 2	Analysis of Variance Approach to Regression General Linear Test Approach Descriptive Measures of Linear Association	
Week 4 09/30	4	Chapter 3	Diagnostics for Predictor Variable, Residuals Overview of Tests Involving Residuals Test for Constancy of Error Variance, F Test for Lack of Fit Overview of Remedial Measures, Box-Cox Transformations	
Week 5 10/7	5	Chapter 4	Joint Estimation for Regression Parameters Simultaneous Estimation of Mean Responses Simultaneous Prediction Intervals for New Observations	
Week 6 10/14	6	**MIDTERM EXAM**		

Week 7 10/21	7	Chapter 4	Regression through Origin Effects of Measurement Errors Inverse Predictions	
Week 8 10/28	8	Chapter 5	Matrices and their Properties Simple Linear Regression Model in Matrix Terms Least Squares Estimation of Regression Parameters	
Week 9 11/4	9	Chapter 5	Fitted Values and Residuals Analysis of Variance Results Inferences in Regression Analysis	
Week 10 **11/11**	10	Chapter 6	Multiple Regression Models General Linear Model in Matrix Terms Estimation of Regression Coefficients	
Week 11 11/18	11	Chapter 6	Fitted Values and Residuals Analysis of Variance Results Inferences about Regression Parameters	
Week 12 11/25	12	Chapter 7	Extra Sums of Squares Summary of Tests Concerning Regression Coefficients	
Week 13 12/2	13	 Chapter 9	 Overview of Model-Building Process	
Week 14 12/09	14		**REVIEW FOR FINAL EXAM**	