Class Hours       Tuesday, Thursday
                 5:30 pm – 6:50 pm, DB 329

Contact Information

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Required Materials and Accessory

Required:
1) Lecture Notes (available through WebCT), and

Recommended:
2) Minitab Tutorial :
   http://www.minitab.com/uploadedFiles/Shared_Resources/Documents/MeetMinitab/MeetMinitabEN.pdf

Course Description

3033: Business & Economic Statistics       3(3-0) Credit: 3 semester hours
Introduction of statistical methods to the analysis of problems encountered in business and economics. Topics include descriptive statistics, probability and probability distributions, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, and simple and multiple regression and correlation.

Course Objective
A. General Learning Goals:

Upon successful completion of this course, students should be able to:
1) Demonstrate problem solving and decision-making abilities through critical analysis, evaluation, and interpretation of business information. Problem solving skills and interpretation of results will be assessed on the quizzes and the final exam.
2) Understand the fundamental structure and approach of computer software in the application of statistical analysis.

B. Course Specific Learning Goals:

Upon successful completion of this course, students should be able to:
1) Understand the appropriate methodology for computing all statistical measures covered in this course.
2) Apply basic statistical measures to the solution of structured business problems and interpret results.
3) Define and discuss the concept of the “standard deviation” and how this concept is applied to probability distributions, interval estimation, hypothesis testing, analysis of variation, and regression analysis.
4) Define and discuss the concept of the “sampling distribution” and apply the concept to interval estimation, hypothesis testing, and regression analysis.
5) Conduct fundamental statistical analysis with the help of Microsoft Office Excel 2007 and Minitab 15.

Prerequisite

Business majors (i.e. students pursuing a B.B.A. degree) must (1) complete all nine of the business core courses (27 semester hours) with an overall GPA of at least 2.00 and (2) complete an additional 21 hours in the university core before taking any upper division (3000 or 4000 level) business courses. Specific Prerequisites: Junior standing or above or consent of the chair, MATH 1203 or MATH 1233, and CMPS 2153 or equivalent.

Calculator Requirement

Each student should have a calculator (a regular or a scientific one will do) in class. A student is expected to be familiar with his/her calculator’s functions.

Grading and Evaluation

Course Grading:

Grading will be based on the following: participation, 6 quizzes, and the final exam. Exams and your final grade may be curved. Partial points in the exams will be rounded up. In addition, there could be some opportunities to earn extra credits (e.g., extra point projects).

In general, the following grading schedules will apply:
100 - 90% = A (superior)  
89 - 80% = B (above average)  
79 - 70% = C (average)  
69 - 60% = D (below average)  
≤ 59% = F (failing)  

Quizzes = 60% (10% * 6)  
Final Exam = 30%  
Participation = 10%  

Extra Credits: up to 3 points

All grades are firm and non-negotiable. To maintain the fairness to the entire class, the same grading criteria will be applied to every student, and no personal reason will be considered for grading purposes. No grades will be disclosed by email, by phone, or online.

Exams:

There will be 6 quizzes and 1 final exam during this term. The exams will include questions on any covered material, e.g., lecture notes, textbook, classroom discussions, and reading assignments. Each of the 6 quizzes will last for 40 minutes, while the final exam will take 2 hours. Each exam contains a varying mixture of true/false, multiple choice, short essay and calculation questions. All quizzes will be held during regular class hours in the assigned classroom on Sep 13, Sep. 27, Oct. 11, Oct. 25, Nov. 8 and Nov. 22, respectively. The final exam will be held in the assigned classroom at 8 pm-10 pm on Dec. 6 (Tuesday). Each student will need a calculator for the exams. Cell phones are not allowed during the exams.

There will be no make-up for the exams. It is the student’s responsibility to know when and where exams will be held. Students missing an exam without a valid excuse will receive an exam grade of zero for the specific exam. A valid excuse is defined as an authorized absence (see Midwestern State University Student Handbook (2010-2011) p. 37 for the definition) or an unforeseeable, proved, and documented event that requires the student’s presence in a place other than the classroom during the class period, and such event is deemed acceptable by the instructor. In the case of an excused absence, the document justifying the absence must be turned to the instructor within one week from the absence, and the weight assigned for the missed exam will be redistributed to the final exam. No student will be allowed to miss the final exam.

Participation:

Student participation is very important for this course. Therefore participation credits are assigned to encourage students to attend classes and engage in class discussion. Participation grade depends on the following factors:

- Attendance
- Performance on raising and answering questions in class
- Performance on raising and answering questions on WEBCT discussion board

Students with outstandingly good participation can earn up to 10 points of participation grades, while students that seldom participate or are disruptive to class may get zero participation grade. There is no guarantee that a student attending every class will automatically receive the full credit of class participation.
Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student’s grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered as part of the grade, the instructor should so inform students of the specifics in writing at the beginning of the semester in a syllabus or separate attendance policy statement. An instructor who has an attendance policy must keep records on a daily basis. The instructor must give the student a verbal or written warning prior to being dropped from the class. Instructor’s records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies.

For the record keeping purpose, in each class period a roll sheet will be passed through the class and students need to make sure that they sign on the roll sheet. Signing any other student’s name on the roll sheet is considered as a disruptive conduct in this course. No student is allowed to enter the classroom if s/he is late for more than 15 minutes. A student who needs to leave the classroom early must ask the instructor for an approval before the class.

There is a “3-missed-classes” policy. Every student can miss 3 classes for whatever reason without losing participation points. Once one student misses more than 3 classes, s/he will lose participation points on an incremental base – “one more point deduction at one additional missing,” till all 10 participation points are depleted.

Instructor Drop, Midwestern State University Student Handbook (2010-2011) p. 38

An instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct. The instructor must give the student a verbal or written warning prior to being dropped from the class. An instructor’s drop of a student takes precedence over the student-initiated course drop of a later date. The instructor will assign a grade of either WF or F through the 8th week of a long semester, the 6th week of a 10 week summer term, or the 11th class day of a 4 or 5 week summer term consisting of 20 days. After these periods the grade will be an F. The date the instructor drop form is received in the Office of the Registrar is the official drop date.

Students who miss more than one third of the class periods without valid excuses will be dropped from this course. A valid excuse is defined as an authorized or an unforeseeable, proved, and documented event that requires the student’s presence in a place other than the classroom during the class period, and such event is deemed acceptable by the instructor. In the case of an excused absence, the document justifying the absence must be turned to the instructor within one week from the absence.

Students who fail to meet class assignments, show indifferent attitudes, or reveal disruptive conducts will be given warnings each time such instance occurs. Students with more than two warnings will be dismissed from this course.
**Other Course Policies**

1) Please bring a calculator to class.
2) Please do not use your laptop or cell phone during the class.
3) It is obviously in a student’s best interests to attend class regularly. The materials are cumulative in nature, so if a student misses some lectures, s/he will not make sense out of subsequent lectures. So skip at your own risk!
4) Students are expected to read the class material before and after the scheduled classes.
5) Announcements not made in class will be posted online through WebCT. Students have the responsibility to check the postings regularly.
6) *Video, audio, and image recording other than taking hand-written or typed notes in the classroom is not allowed without the prior consent of the instructor. Redistribution of course material prepared by the instructor in any form outside this class is not allowed.*

**Academic Integrity**

With regard to academic honesty, students are referred to the “Student Honor Creed” and “Academic Dishonesty” on p. 19 of *Midwestern State University Undergraduate Catalog*, Vol. LXXVIII, No. 1 (2010-2012).

**Americans with Disabilities Act**

This class follows the guidelines suggested by the Center for Counseling and Disabilities Services for those students who qualify for disability services. Please notify the instructor of your special needs during the first week of the class. See *Midwestern State University Undergraduate Catalog*, Vol. LXXVIII, No. 1 (2010-2012), p. 21.

**Syllabus Change Policy**

This syllabus is a guide for this course and is subject to change with advanced notice.

**References**

Midwestern State University Student Handbook (2010-2011) and Undergraduate Catalog (2010-2012), respectively, at http://students.mwsu.edu/dean/ and http://registrar.mwsu.edu/catalog/.

**Course Content and Sequence of Topics**

Chapter 1 – What is Statistics?
Chapter 2 – Describing Data: Frequency Tables, Frequency Distributions, and Graphic Presentation
Chapter 3 – Describing Data: Numerical Measures
Chapter 4 – Describing Data: Displaying and Exploring Data
Chapter 5 – A Survey of Probability Concepts
Chapter 6 – Discrete Probability Distribution
Chapter 7 – Continuous Probability Distribution
Chapter 8 – Sampling Methods and the Central Limit Theorem
Chapter 9 – Estimation and Confidence Intervals
Chapter 10 – One-Sample Tests of Hypothesis
Chapter 11 – Two-Sample Tests of Hypothesis
Chapter 13 – Linear Regression and Correlation

**Exam Dates**

Quiz 1: September 13 (Tuesday)
Quiz 2: September 27 (Tuesday)
Quiz 3: October 11 (Tuesday)
Quiz 4: October 25 (Tuesday)
Quiz 5: November 8 (Tuesday)
Quiz 6: November 22 (Tuesday)
Final Exam (8 pm – 10 pm): December 6 (Tuesday)