

MIDSTATE COLLEGE
411 W. NORTHMOOR RD
PEORIA, IL 61614
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Summer 2019

Course: BUS 232-Business Statistics (IAI BUS 901)

Credit: 4 Quarter Hours

Method of Delivery: eLearning

Instructor: Taki Nagase

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Office Hours: By Appointment

Textbook : Introductory Statistics, 8th edition

Author: Prem S. Mann

Publisher: John Wiley and Sons, Inc.

Hardware/Software and Equipment:

- Windows 2000 (XP recommended)
- Microsoft Word, PowerPoint and Excel 2003
- Java Software: Java Runtime Environment Version 5.0 Update 5 (<http://java.com/en/download/index.jsp>)
- Up-to-date virus protection
- Internet Access (DSL or Cable Modem preferred)
- Microsoft Internet Explorer 5.0 or higher preferred

Prerequisite: MAT140 or placement based on Entrance Exam Score

Course Description:

An introduction to the use of statistics in business, science, and everyday life; frequency distributions, probability, sample design, and statistical inference are among the topics discussed. Each student will learn how to process and evaluate quantitative data and apply such analysis to the solution of business and science problems.

Topics: General topics to be covered include the binomial and normal distributions and sampling distributions. Also discussed will be topics that include interpretation of results, recognizing misuse of statistical results. Topics that will be discussed in the arena of descriptive statistics include frequency distributions, characteristics of distributions, measures of central tendency, variation, and regression and correlation. Topics that will be discussed in the arena of inferential statistics include elementary techniques of hypothesis testing, Analysis of Variance (one way Anova's), testing variances, and Pearson chi-squared, along with other non-parametric techniques.

Learning Objectives: Upon completion of this course, the student will be able to:

1. relate how statistics in business are used in controlling the operating of a business and in the decision making process.
2. discuss the importance of descriptive statistics including graphing data, characteristics of distributions, and measures of central tendency.
3. demonstrate an understanding of regression and correlation.

4. test hypotheses including inferences about the difference between means, inferences about the difference between and correlation coefficients.
5. test hypotheses about multiple means in one variable (simple analysis of variance).
6. perform parametric and nonparametric tests.

Midstate Grading Scale:

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
0 – 59%	F

Academic Integrity:

Academic integrity is a basic principle of the College’s function. Midstate College students are expected to maintain a high level of academic honesty. Contrary actions may result in penalties such as failure of the assignment(s), a lesser grade on assignment(s), failure of the course and/or suspension from the College. The course instructor will review all submitted documents and supporting evidence in connection to the infraction. The course instructor will also review the student’s personal file for other notifications of academic dishonesty before determining the level of action to be applied. The course instructor will complete the Academic Dishonesty Report form to document and describe the incident and actions taken, then kept on file. The student may appeal the decision to administration, whose decision will be final.

The following (**plagiarism, cheating, deception, sabotage, computer misuse and copyright infringement**) are included in the actions Midstate College considers behavior contrary to the academic integrity policy; however, the policy is not limited to these examples. Further discussion of consequences regarding academic dishonesty are addressed in the Student Handbook.

Plagiarism:

Plagiarism is using another person’s words, either by paraphrase or direct quotation, without giving credit to the author(s). Plagiarism can also consist of cutting and pasting material from electronic sources by submitting all or a portion of work for assignment credit. This includes papers, computer programs, music, sculptures, paintings, photographs, etc. authored by another person without explicitly citing the original source(s). These actions violate the trust and honesty expected in academic work. Plagiarism is strictly against the academic policy of Midstate College. Its seriousness requires a measured, forceful response which includes consequences for inappropriate and/or no citation.

In courses containing writing assignments, the College promotes the use of Turnitin which compares the student’s writing against previously submitted papers, journals, periodicals, books, and web pages. Students and instructors can use this service to reduce the incidence of plagiarism. This electronic resource has been found to conform to legal requirements for fair use and student

confidentiality. It is able to provide a report to the student indicating the parts of the assignment that match.

Student Success and Tutoring:

Contact Student Success: Room 110; (309) 692-4092, ext. 1100; studentsuccess@midstate.edu;
The Office of Student Success offers help in the following areas:

- Tutoring: Tutoring is encouraged for students who are doing their best to complete assignments yet still are experiencing difficulty in this course. Tutoring may be provided by the instructor outside of scheduled class times or through the office of Student Success.
- Writing assignment assistance: This may include learning how to conduct research; using proofreading tools such as Turnitin; outlining a topic; and applying MLA/APA standards.
- Math, accounting, and computer skills (including file management).
- Test-taking techniques.
- Note-taking skills development.
- Study skills development.
- Time management.

Policies & Procedures:

1. Attendance: Your attendance will be determined for each week by **whether or not you attend class or submit substantial gradable work**. Absences will result in a reduction of the final course grade.
2. Discussion Forum: Each week you will be asked to respond to a Class Forum question. The **initial response** has to be posted for full credit **by midnight on Thursday** each week. In addition to writing your own answer, each week you will compose a response to at least one answer posted by another student. Discussion Forum is open at noon on Monday, and **closed at 8:00 a.m. on the following Monday** each week.
3. Homework: Weekly homework will be assigned on the material covered that week. You are required either to submit homework in class, or submit it to the appropriate drop box (i.e. Week 1 Homework Drop Box). Homework is **due by 8:00 a.m. on Monday** each week except during the midterm and final examination week. **Late homework will be accepted with a 50% penalty. No late homework is accepted after one week of the due date.** You must **show work** to receive credit on the homework.
4. Quizzes: Quizzes will be given on a weekly basis except during the midterm and final week. Quizzes are **due by 8:00 a.m. on Monday** each week. Late quizzes will be accepted for up to one week following the due date with a 50% penalty.
5. Exams: There will be 2 exams, a midterm and final. **No late examination is accepted.** The midterm and final examination **are open at noon on Monday and be due by 8:00 a.m. on the following Monday. Do not leave it to the last moment to take an examination.**

For details on the Discussion Forum and homework, refer to the Discussion Forum and homework instructions, which are presented each week. Students are not expected to respond to the Discussion Forum nor homework on the weeks of the mid-term and final exam.

Grading Specifications:

Attendance/Participation	20%
Homework	30%
Weekly Quizzes	20%
Mid-term exam	15%
Final exam	15%

Course Schedule:

	Home-work	Attendance	Quiz	Exams
Week 1	10	10	10	
Week 2	10	10	10	
Week 3	10	10	10	
Week 4	10	10	10	
Week 5	10	10	10	
Week 6				100
Week 7	10	10	10	
Week 8	10	10	10	
Week 9	10	10	10	
Week 10	10	10	10	
Week 11	10	10	10	
Week 12				100
Totals:	100	100	100	200

Week-by-Week Course Overview

Note: The instructor reserves the right to modify the syllabus at any time should that action be deemed necessary.

WEEK 1:

[Topics](#)

- No assigned reading this week.

Objectives

- Introduction to course.
- Begin familiarizing the student with the Flex Learning course format.

Assignments:

1. Respond to the question in BUS 232 Week 1 Discussion Forum.
2. Take the Pre-Test Quiz. All students that take the quiz will receive 10 points for the “Quiz” grade for that week.
3. Submit your weekly homework to the BUS 232 Week 1 Homework Drop-Box.

WEEK 2:

Topics

- Chapter 1: Introduction
- Chapter 2: Organizing and Graphing Data

Objectives

Upon successful completion of this week, the student will be:

- Demonstrate why the study of statistics is important in the business world.
- Discuss different types of statistics
- Organize and present data effectively

Assignments:

1. Take the Week 2 quiz..
2. Respond to the question in BUS 232 Week 2 Discussion Forum.
3. Submit your homework to the BUS 232 Week 2 Homework Drop-Box.
4. Read Chapter 1 and 2.

WEEK 3:

Topics

- Chapter 3: Numerical Descriptive Measures

Objectives

Upon completion of this week's assignments, the student will be able to:

- Understand the concept of central tendency
- Calculate the mean, variance, and standard deviation for group data.

Assignments:

1. Take the Week 3 quiz.
2. Respond to the question in BUS 232 Week 3 Discussion Forum.
3. Submit your weekly homework to the BUS 232 Week 3 homework Drop-Box.
4. Read Chapter 3.

WEEK 4:

Topics

- Chapter 4: Probability

Objectives

Upon completion of this week's assignments, the student will be able to:

- Calculate probabilities
- Understand marginal and conditional probabilities

Assignments

1. Take the Week 4 quiz.
2. Respond to the question in BUS 232 Week 4 Discussion Forum.
3. Submit your weekly homework to the BUS 232 Week 4 Homework Drop-Box.
4. Read Chapter 4.

WEEK 5:

Topics

- Chapter 5: Discrete Random Variables and Their Probability Distributions
- Chapter 6: Continuous Random Variables and the Normal Distribution

Objectives

Upon completion of this week's assignments, the student will be able to:

- Distinguish between discrete and continuous random variables
- Identify and work with a normal distribution

Assignments:

1. Take the Week 5 quiz.
2. Respond to the question in BUS 232 Week 5 Discussion Forum.
3. Submit your weekly homework to the BUS 232 Week 5 Homework Drop-Box.
4. Read Chapter 5 and 6.

WEEK 6:

Midterm Examination

1. Take the Midterm Exam posted in the BUS 232 Week 6 folder.
2. There is no participation or weekly homework requirement for this week.

WEEK 7:

Topics

- Chapter 7: Sampling Distributions

Objectives

Upon completion of this week's assignments, the student will be able to:

- Understand the concept of population and sampling distributions

Assignments:

1. Take the Week 7 quiz.
2. Respond to the question in BUS 232 Week 7 Discussion Forum
3. Submit your weekly homework to the BUS 232 Week 7 Homework Drop-Box.
4. Read Chapter 7.

WEEK 8:

Topics

- Chapter 8: Estimation of the Mean and Proportion

Objectives

Upon completion of this week's assignments, the student will be able to:

- Understand the concepts of point and interval estimates

Assignments:

1. Take the Week 8 quiz.
2. Respond to the question in BUS 232 Week 8 Discussion Forum.
3. Submit your weekly homework to the BUS 232 Week 8 Homework Drop-Box.
4. Read Chapter 8.

WEEK 9

Topics

- Chapter 9: Hypothesis Tests About the Mean and Proportion

Objectives

Upon completion of this week's assignments, the student will be able to:

- Perform a simple hypothesis test.
- Identify the differences in hypothesis testing between large and small samples.

Assignments:

1. Take the Week 9 quiz.
2. Respond to the question in BUS 232 Week 9 Discussion Forum.
3. Submit your weekly homework to the BUS 232 Week 9 Homework Drop-Box.
4. Read Chapter 9.

WEEK 10:

Topics

- Chapter 10: Estimation and Hypothesis Testing: Two Populations

Objectives

Upon completion of this week's assignments, the student will be able to:

- Understand the differences in hypothesis testing across diverse samples.

Assignments:

1. Take the Week 10 quiz.
2. Respond to the question in BUS 232 Week 10 Discussion Forum.
3. Submit your weekly homework to the BUS 232 Week 10 Homework Drop-Box.
4. Read Chapter 10.
5. Complete the Flex Learning instructor evaluation. The link to complete the evaluation will be posted in the BUS 232 Week 10 Folder.

WEEK 11:

Topics

- Chapter 11: Chi-Square Tests

Objectives

Upon completion of this week's assignments, the student will be able to:

- Identify when a Chi-Square test is appropriate
- Perform a Chi-Square test.

Assignments:

Take the Week 11 quiz will be posted by noon on Day 1. The quiz is to be completed by midnight on Day 11.

1. Respond to the question in BUS 232 Week 11 Discussion Forum.
2. Submit your weekly summary to the BUS 232 Week 11 Summary Drop-Box.
3. Read Chapter 11.

WEEK 12:

[Final Examination](#)

1. Take the Final Examination posted in the BUS 232 Week 12 folder.
2. There is no participation or weekly homework requirement for this week. Good luck!