

# BUSN625

**STUDENT WARNING:** This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

## Course Summary

**Course :** BUSN625 **Title :** Applied Decision Making

**Length of Course :** 8

**Prerequisites :** N/A **Credit Hours :** 3

## Description

**Course Description:** This is a course in business analysis. This course investigates the advanced analysis methods and techniques used to solve modern business problems. The course emphasizes the most successful methods from business statistics, production and operations management, management science, and operations research fields of study. Students will be required to synthesize material from several major fields of study in order to apply it in this course. The capabilities of Microsoft Office will be used extensively throughout the course to illustrate the application of these methods and techniques to the analysis and solution of modern business problems. The course will first investigate the types of problems faced by businesses in the both the production and service areas. Methods of analysis will be investigated to solve these type problems including probability concepts and their applications, statistical quality control, process design, forecasting, inventory control, waiting line models, transportation and assignment methods, decision analysis, and simulation modeling.

### Course Scope:

This course provides a basic introduction to business statistics and decision models/optimization, focusing on practical applications of data analysis and decision modeling. It will provide the fundamental understanding of why to use a procedure, how to use it correctly, and how to properly interpret results.

This **Business Administration** course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Resources and access to an online learning management system will be made available to each student.

## Objectives

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making

LO-2 Utilize statistical inference to draw relevant conclusions from data

LO-3 Apply regression analysis to inform business decision-making

LO-4 Discriminate among qualitative and quantitative forecasting models appropriate to discrete

managerial needs

LO-5 Apply risk analysis to anticipate possible business outcomes

LO-6 Integrate statistical reports with managerial thinking to resolve uncertainty and achieve business utility

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## Outline

### Week 1:

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Topic(s)

STATISTICS AND DATA ANALYSIS

Data and Business Decision; Displaying and Summarizing Data

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

#### Text Readings:

- Statistics, Data Analysis, and Decision Modeling, 5/E  
Chapters 1 & 2

#### Deliverables:

Introduction Post, due day 7

Problem Set 1, due day 7

Quiz 1, due day 7 (ungraded)

### Week 2:

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Topic(s)

Probability Distributions and Applications; Sample and Estimation

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-2 Utilize statistical inference to draw relevant conclusions from data

#### Text Readings:

- Chapters 3 & 4

#### Deliverables:

Forum Post Week 2, due day 3

Problem Set 2, due day 7

Quiz 2, due day 7 (ungraded)

### **Week 3:**

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Topic(s)

Hypothesis Testing and

Statistical Inference; Regression Analysis

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-2 Utilize statistical inference to draw relevant conclusions from data

LO-3 Apply regression analysis to inform business decision-making

#### **Text Readings:**

- Chapter 5 & 6

#### **Deliverables:**

Forum Post Week 3, due day 3

Problem Set 3, due day 7

Quiz 3, due day 7 (ungraded)

### **Week 4:**

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Topic(s)

Forecasting; Statistical Quality Control

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-4 Discriminate among qualitative (judgmental) and quantitative forecasting models that are appropriate to discrete managerial needs

#### **Text Readings:**

- Chapters 7 & 8

#### **Deliverables:**

Forum Post Week 4, due day 3

Problem Set 4, due day 7

Quiz 4, due day 7 (ungraded)

### **Week 5:**

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Topic(s)

DECISION MODELING AND ANALYSIS

Building and Using Decision Models; Risk Analysis and Monte Carlo Simulation

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-2 Utilize statistical inference to draw relevant conclusions from data

LO-4 Discriminate among qualitative (judgmental) and quantitative forecasting models that are appropriate to discrete managerial needs

**Text Readings:**

- Chapters 9 & 10

**Deliverables:**

Forum Post Week 5, due day 3

Problem Set 5, due day 7

Quiz 5, due day 7 (ungraded)

**Week 6:**

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Topic(s)

Decisions, Uncertainty, and

Risk; Queues and Process Simulation Modeling

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-2 Utilize statistical inference to draw relevant conclusions from data

LO-4 Discriminate among qualitative (judgmental) and quantitative forecasting models that are appropriate to discrete managerial needs

LO-5 Apply risk analysis to anticipate possible business outcomes

LO- 6 Integrate statistical reports with managerial thinking to resolve uncertainty and achieve business utility

**Text Readings:**

- Chapters 11 & 12

**Deliverables:**

Forum Post Week 6, due day 3

Problem Set 6, due day 7

Quiz 6, due day 7 (ungraded)

### **Week 7:**

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Topic(s)

Linear Optimization; Integer and Nonlinear Optimization

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-2 Utilize statistical inference to draw relevant conclusions from data

LO-3 Apply regression analysis to inform business decision-making

LO-6 Integrate statistical reports with managerial thinking to resolve uncertainty and achieve business utility

### **Text Readings:**

- Chapters 13 & 14

### **Deliverables:**

Forum Post Week 7, due day 3

Assignment 7 Project, due day 7

### **Week 8:**

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Topic(s)

Course Review and Final Exam

Learning Objective(s)

LO-1 Identify the types of data and appropriate methods that are specific to managerial decision making processes

LO-2 Utilize statistical inference to draw relevant conclusions from data

LO-3 Apply regression analysis to inform business decision-making

LO-4 Discriminate among qualitative (judgmental) and quantitative forecasting models that are appropriate to discrete managerial needs

LO-5 Apply risk analysis to anticipate possible business outcomes

LO-6 Integrate statistical reports with managerial thinking to resolve uncertainty and achieve business utility

### **Text Readings:**

- Review to all materials for Final Exam

### **Deliverables:**

Forum Post Week 8, due day 3 (ungraded)

## Evaluation

### Grading:

Name	Grade %
Discussion Forums	21.00 %
Introduction	2.63 %
Week 1 Forum	2.63 %
Week 2 Forum	2.63 %
Week 3 Forum	2.63 %
Week 5 Forum	2.63 %
Week 4 Forum	2.63 %
Week 6 Forum	2.63 %
Week 7 Forum	2.63 %
Assignments	12.00 %
Assignment 7	12.00 %
Problem Sets	42.00 %
PS1	7.00 %
PS2	7.00 %
PS3	7.00 %
PS5	7.00 %
PS4	7.00 %
PS6	7.00 %
BUSN625 Final Exam	25.00 %
Final Exam	25.00 %

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## Materials

**Book Title:** Statistics, Data Analysis and Decision Modeling, 5th ed.

**Author:** Evans, James R.

**Publication Info:** Pearson

**ISBN:** 9780132744287

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## Course Guidelines

### Citation and Reference Style

- Students will follow APA format as the sole citation and reference style used in written assignments submitted as part of coursework to the School of Business.
- Please note that no formal citation style is required on forum assignments in the School of Business—only attribution of sources (please see details regarding forum communication below).

## Tutoring

- [Tutor.com](https://www.tutor.com) offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

## Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each assignment.
- Generally speaking, if arrangements are not made in advance, a late penalty of 10% will be assessed for any assignment submitted 1-7 days past the due date. Assignments will not be accepted after the 7th day. No work will be accepted past the final day of class, unless prior arraignments have been made with the instructor.
- As a working adult, your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

## Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze an assignment submission and report a similarity score. Your assignment submission is automatically processed through the assignments area of the course when you submit your work.

## Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com or Scribd. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

## Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc). See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.
- It is the student's responsibility to ensure the all submitted work can be accessed and opened by the instructor.

## Disclaimer Statement

- Course content may vary from the outline to meet the needs of a particular group or class.

## Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting day/time after which the instructor will grade and provide feedback, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an on-going discussion about the assigned content.
- "Substantive" means comments that contribute something new and important to the discussion. Thus a message that simply says "I agree" is not substantive. A substantive comment contributes a new idea

or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.

- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.
- Students must post a response to the weekly forums prompt and post the required number of replies to other students – refer to the grading rubric and/or forum instructions for specific expectations on number of replies and word count requirements.
- The main response to the forum need to be provided mid-week – refer to the grading rubric and/or forum instructions for specific expectations. Late main response posts to a forum will not be accepted without prior instructor approval.
- Replies must be posted in the week due and replies after the end of the each week will not be graded.

## Quizzes and Exams

- Quizzes and exams may consist of true/false, multiple choice, and short essay questions. Each quiz/exam is accessible only once. Once a quiz/exam is accessed, you will not be able to access it again if you disconnect. Therefore, allocate time to complete your quiz. Weekly quizzes must be submitted by midnight Eastern Time, Day 7 of the assigned week. Late quizzes or exams will not be accepted without prior instructor approval.

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## University Policies

### [Student Handbook](#)

- [Drop/Withdrawal policy](#)
- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Disability Accommodations](#)

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