Think About "Alignment"

Course: MBA8150 Business Analytics

Course-Level Objective(s):

1. Categorize data to construct appropriate tables and charts, and interpret data using Excel.

Module-Level Objective(s):

WK01: Statistics Overview, Describing Data Graphically and Numerically

To recall why knowledge of statistics is important. To differentiate between descriptive and inferential statistics. To recognize variables as qualitative or quantitative, and discrete or continuous. To distinguish between nominal, ordinal, interval, and ratio levels of measurement. To summarize qualitative and quantitative variables with frequency and relative frequency tables, bar and pie charts, histograms and frequency polygons using Excel. To compute and interpret the mean, the median, mode, weighted mean, geometric mean, range, variance, and standard deviation using Excel. To compute the mean and standard deviation of grouped data using Excel. To compute measures of position using Excel.

WK08: Simple Linear Regression and Correlation

To create scatter diagrams using Excel. To interpret the relationship between two variables and confidence and prediction intervals.

Standard 4.1, Resources and Materials:

- "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al.
- Microsoft Excel, Instructor's Excel-01 Model
- Resources and Assignments Web Page
- Instructional videos created by the instructor
- Self-study Guides and Terms

Standard 5.1, Learning Engagement and Activities:

Textbook Readings:

- Chapter 1: What is Statistics, Read entire chapter.
- Chapter 2: Graphic Presentation, Read entire chapter.
- Chapter 3: Numerical Measures, Read chapter, skip Geometric Mean.
- Chapter 4: Exploring Data, Read chapter, skip Stem-and-Leaf Displays, and Contingency Tables
- Chapter 13: Regression and Correlation, Read chapter, skip Transforming Data.

Instructional Videos (created by the Instructor) to be Watched:

- Ch01 Lecture: What is Statistics?
- Ch02 Lecture: Describing Data Graphically.
- Excel Overview and Fundamentals
- Ch02 Excel: Creating Graphs
- Ch03 Lecture: Describing Data Numerically
- Ch03 Excel: Descriptive Statistics
- Ch04 Lecture: Other ways to describe data.
- Ch04 Excel: Miscellaneous ways to describe data.
- WK08 Lecture: Ch13, Correlation and Linear Regression.
- WK08 Excel: Ch13, Correlation and Linear Regression.
- WK01 Reinforcement Lecture
- WK08 Reinforcement Lecture

Specific Activities

Review Instructor provided chapter PowerPoint outlines

Review self-study guides for each chapter
After completing readings, test your understanding with Concepts Self-Assessments.
Redo/practice until you have achieved desired understanding
Watch each instructor's Excel videos: Solve problems from the video. Then do Problems self-
assessments using Excel. Redo/practice until you have achieved desired understanding.
• Watch each instructor's Reinforcement videos: Solve problems from this video as a review.
 Complete graphing assignment and submit your Excel graphs
 Bonus Activity: Create PivotTable for Ordinal data and submit your Excel file
 Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare
Discussions
Review instructor's and student's posts in the following forums. Contribute your own as necessary.
 After completing the Excel graphing exercise, provide your thoughts about this exercise and
about using Excel for graphing.
 WK01: Any Questions, Comments, or Observations Forum
 WK08: Any Questions, Comments, or Observations Forum
Standard 6.1, Course Technology:
Standard 6.1, Course Technology: Instructional Videos
Standard 6.1, Course Technology: Instructional Videos Microsoft Excel
Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS
Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS Standard 3.1, Assessment and Measurement:
Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS Standard 3.1, Assessment and Measurement: (Ch01) Concepts Self-Assessment
Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS Standard 3.1, Assessment and Measurement: (Ch01) Concepts Self-Assessment (Ch02) Concepts Self-Assessment
Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS Standard 3.1, Assessment and Measurement: (Ch01) Concepts Self-Assessment (Ch02) Concepts Self-Assessment (Ch02) Submit your Excel M&M data and graph
Standard 6.1, Course Technology:Instructional VideosMicrosoft ExcelMoodle LMSStandard 3.1, Assessment and Measurement:(Ch01) Concepts Self-Assessment(Ch02) Concepts Self-Assessment(Ch02) Submit your Excel M&M data and graph(Ch02) Thoughts on Graphing Data with Excel Forum
Standard 6.1, Course Technology:Instructional VideosMicrosoft ExcelMoodle LMSStandard 3.1, Assessment and Measurement:(Ch01) Concepts Self-Assessment(Ch02) Concepts Self-Assessment(Ch02) Submit your Excel M&M data and graph(Ch02) Thoughts on Graphing Data with Excel Forum(Ch03) Concepts Self-Assessment
Standard 6.1, Course Technology:Instructional VideosMicrosoft ExcelMoodle LMSStandard 3.1, Assessment and Measurement:(Ch01) Concepts Self-Assessment(Ch02) Concepts Self-Assessment(Ch02) Submit your Excel M&M data and graph(Ch02) Thoughts on Graphing Data with Excel Forum(Ch03) Concepts Self-Assessment(Ch03) Problems Self-Assessment
Standard 6.1, Course Technology:Instructional VideosMicrosoft ExcelMoodle LMSStandard 3.1, Assessment and Measurement:(Ch01) Concepts Self-Assessment(Ch02) Concepts Self-Assessment(Ch02) Submit your Excel M&M data and graph(Ch02) Thoughts on Graphing Data with Excel Forum(Ch03) Concepts Self-Assessment(Ch03) Problems Self-Assessment(Ch04) Concepts Self-Assessment
Standard 6.1, Course Technology:Instructional VideosMicrosoft ExcelMoodle LMSStandard 3.1, Assessment and Measurement:(Ch01) Concepts Self-Assessment(Ch02) Concepts Self-Assessment(Ch02) Submit your Excel M&M data and graph(Ch02) Thoughts on Graphing Data with Excel Forum(Ch03) Concepts Self-Assessment(Ch03) Problems Self-Assessment(Ch04) Concepts Self-Assessment(Ch04) Concepts Self-Assessment(Ch04) Concepts Self-Assessment(Ch04) Concepts Self-Assessment
Standard 6.1, Course Technology:Instructional VideosMicrosoft ExcelMoodle LMSStandard 3.1, Assessment and Measurement:(Ch01) Concepts Self-Assessment(Ch02) Concepts Self-Assessment(Ch02) Submit your Excel M&M data and graph(Ch02) Thoughts on Graphing Data with Excel Forum(Ch03) Concepts Self-Assessment(Ch03) Problems Self-Assessment(Ch04) Concepts Self-Assessment(Ch05) Problems Self-Assessment(Ch07) Problems Self-Assessment(Ch07) Problems Self-Assessment(Ch13) Problems Self-Assessment(Ch13) Problems Self-Assessment(Ch13) Problems Self-Assessment

Course: MBA8150 Business Analytics	Standard 4.1, Resources and Materials:
	 "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al.
Course-Level Objective(s):	 Microsoft Excel, Instructor's Excel-02 Model and Excel-10 Model
2. Investigate decision alternatives in the	 Resources and Assignments Web Page
face of uncertainty. To use decision tree	 Instructional videos created by the instructor
diagrams.	Self-study Guides and Terms
	TreePlan Add-in File
	Standard 5.1. Learning Engagement and Activities:
	Textbook Readings:
Module-Level Objective(s):	 Decision Analysis and Decision Trees. Supplemental Readings: Lind Ch20 (from 16 Ed.),
WK02: Decision Analysis and Decision Trees	Bertsimas Ch.1 §1-3
,	Supplemental Reading Chapter 5 Simulation Modeling.
To create decision trees using Excel. To evaluate	Instructional Videos (created by the Instructor) to be Watched:
decision alternatives under uncertainty using Excel.	WK02 Decision Trees
To calculate the expected monetary value. To change	WK02 Excel-Decision Trees
decision variables for sensitivity analysis using Excel.	WK10: Optimization and Simulation
	WK02 Reinforcement Lecture
WK10: Optimization and Simulation	WK10 Reinforcement Lecture
	Specific Activities
To list the advantages and disadvantages of modeling	 Review Instructor provided chapter PowerPoint outlines
with simulation. To compare decisions using Excel	 Review self-study guides for each chapter
simulation models. To apply sensitivity analysis to	 After completing readings, test your understanding with Concepts Self-Assessments.
simulation models using Excel.	Redo/practice until you have achieved desired understanding
	Watch each instructor's Excel videos: Solve problems from the video. Then do Problems Self-
	Assessments using Excel. Redo/practice until you have achieved desired understanding.
	 Watch each instructor's Reinforcement videos: Solve problems from this video as a review.
	 Use Conley Fisheries Simulation to simulate different scenarios and solve problems
	 Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare
	Discussions
	Review instructor's and student's posts in the following forums. Contribute your own as necessary.
	WK02: Any Questions, Comments, or Observations Forum
	WK10: Any Questions, Comments, or Observations Forum
	Standard 6.1, Course Technology:
	Instructional Videos
	Microsoft Excel

Moodle LMS
Standard 3.1. Assessment and Measurement:
WK02 Concepts Self-Assessment
WK02 Problems Self-Assessment
WK10 Simulation Self-Assessment
Exam1

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Course-Level Objective(s):

3. Define probability for an event and calculate probabilities and outcomes using rules of addition, multiplication, and counting.

Module-Level Objective(s):

WK03: Decision-Making under Uncertainty; Probability Concepts and Counting

To define the terms probability, experiment, event, and outcome. To recognize probabilities using a classical, empirical, or subjective approach. To calculate probabilities using the rules of addition and the rules of multiplication. To determine the number of outcomes using principles of counting: arrangements, permutations, and combinations using Excel.

WK10: Optimization and Simulation

To calculate probabilities using simulation.

Standard 4.1,	Resources and	Materials:
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- "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al.
- Microsoft Excel, Instructor's Excel-03 Model and Excel-10 Model
- Resources and Assignments Web Page
- Instructional videos created by the instructor
- Self-study Guides and Terms

Standard 5.1, Learning Engagement and Activities:

Textbook Readings:

- Chapter 5: Probability, Read chapter, skip Contingency Tables, and Baye's Theorem.
- Supplemental Reading Heizer Chapter 5 Simulation Modeling.

Instructional Videos (created by the Instructor) to be Watched:

- WK03 Lecture: Probability Concepts Part 1
- WK03 Lecture: Probability Counting Part 2
- WK03 Excel: Probability calculations.
- WK10: Optimization and Simulation
- WK03 Reinforcement Lecture
- WK10 Reinforcement Lecture

Specific Activities

- Review Instructor provided chapter PowerPoint outlines
- Review self-study guides for each chapter
- After completing readings, test your understanding with Concepts Self-Assessments. Redo/practice until you have achieved desired understanding
- Watch each instructor's Excel videos: Solve problems from the video. Then do Problems Self-Assessments using Excel. Redo/practice until you have achieved desired understanding.
- Watch each instructor's Reinforcement videos: Solve problems from this video as a review.
- Use Conley Fisheries Simulation to simulate different scenarios and solve problems
- Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare

Discussions

Review instructor's and student's posts in the following forums. Contribute your own as necessary.

- WK03: Any Questions, Comments, or Observations Forum
- WK10: Any Questions, Comments, or Observations Forum

Standard 6.1, Course Technology:

Instructional Videos

Microsoft Excel

Moodle LMS

Standard 3.1, Assessment and Measurement:
WK03 (Ch05) Concepts Self-Assessment
WK03 (Ch05) Problems Self-Assessment
WK10 Simulation Self-Assessment
Exam1

Course: MBA8150 Business Analytics

Course-Level Objective(s):

4. Distinguish different kinds of probability distributions. To calculate probabilities of events using Excel.

Module-Level Objective(s):

WK04: Discrete Probability Distributions

To identify the characteristics of a probability distribution. To distinguish between discrete and continuous random variables. To compute the mean, variance, and standard deviation of a discrete probability distribution. To recognize the assumptions of the binomial distribution. To calculate probabilities for binomial distributions using Excel.

WK05: Continuous Probability Distributions

To recognize the features of the uniform probability distribution. To use the uniform probability distribution to calculate probabilities. To recognize the features and characteristics of the normal probability distribution. To recognize the standard normal probability distribution. To calculate probabilities for normal distributions using Excel.

WK06: Sampling Methods, Estimating the Population Mean, and Confidence Intervals

To explain why populations are sampled. To identify four methods to sample a population. To identify sampling error. To construct a sampling distribution of the sample mean using Excel. To calculate probabilities

Standard 4.1, Resources and Materials:

- "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al.
- Microsoft Excel, Instructor's Excel-04 Model, Excel-05 Model, and Excel-06 Model, Excel-07 Model
- Resources and Assignments Web Page
- Instructional videos created by the instructor
- Self-study Guides and Terms

Standard 5.1, Learning Engagement and Activities:

Textbook Readings:

- Chapter 6: Discrete Distributions, Read chapter, skip Hypergeometric and Poisson Probability Distributions.
- Chapter 7: Continuous Distributions, Read chapter, skip Normal Approximation to the Binomial, and The Family of Exponential Distributions.
- Chapter 8: Sampling Methods, Read entire chapter.
- Chapter 9: Estimations and Confidence Intervals. Read chapter. Skip Confidence Level for a Proportion, and Finite-Population Correction Factor.
- Chapter 10: One-Sample Tests, Read chapter, skip Tests Concerning Proportions, Type II Error.
- Chapter 11: Two-Sample Tests, Read chapter, skip Two-Sample Tests about Proportions, Two-Sample Tests of Hypothesis: Dependent Samples, and Comparing Dependent and Independent Samples.
- Chapter 12: ANOVA, Chapter 12: Read from chapter beginning up to and including The ANOVA Test.
- Supplemental Reading Heizer Chapter 5 Simulation Modeling.

Instructional Videos (created by the Instructor) to be Watched:

- WK04 Discrete Probability Distributions
- WK04 Excel: The Binomial Distribution model.
- WK05 Lecture: Ch7, Continuous Distributions and The Normal Distribution.
- WK05 Excel: Ch7, Using Excel for Normal Distribution Calculations
- WK06 Lecture: Ch8, Sampling Methods and the Central Limit Theorem.
- WK06 Excel: Ch8, Model for Sampling Methods and the Central Limit Theorem.
- WK06 Lecture: Ch9, Confidence Limits.
- WK06 Excel: Ch9, Confidence Limits.
- WK07 Lecture: Ch10, Hypothesis Testing.
- WK07 Excel: Ch10, Hypothesis Testing.
- WK07 Two-Sample Tests

of sampled data. To interpret a point estimate and confidence interval for a population mean. To calculate a point estimate and a confidence interval for a population mean using Excel. To calculate the required sample size to estimate a population mean using Excel.

WK07: Hypothesis Testing: One-Sample Tests. Two-Sample Tests and ANOVA

To apply the testing hypothesis procedures in Excel for both one sample and two samples. To recognize what a one-tailed and a two-tailed test of hypothesis should be used. To use a test of a hypothesis about a population mean for one sample by computing and interpreting pvalues. To use the t-statistic to test a hypothesis. To evaluate a hypothesis that two independent population means are equal, assuming that the population standard deviations are known and equal, and with unknown population standard deviations using Excel. To apply the F distribution and test a hypothesis that two population variances are equal using Excel.

WK10: Optimization and Simulation

To calculate probabilities using simulation.

- WK07 Excel: Two-Sample Tests
- WK10: Optimization and Simulation
- WK04 Reinforcement Lecture
- WK05 Reinforcement Lecture
- WK06 Reinforcement Lecture
- WK07 Reinforcement Lecture
- WK10 Reinforcement Lecture

Specific Activities

- Review Instructor provided chapter PowerPoint outlines
- Review self-study guides for each chapter
- After completing readings, test your understanding with Concepts Self-Assessments. Redo/practice until you have achieved desired understanding
- Watch each instructor's Excel videos: Solve problems from the video. Then do Problems Self-Assessments using Excel. Redo/practice until you have achieved desired understanding.
- Watch each instructor's Reinforcement videos: Solve problems from this video as a review.
- Use Conley Fisheries Simulation to simulate different scenarios and solve problems
- Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare

Discussions

Review instructor's and student's posts in the following forums. Contribute your own as necessary.

- WK04: Any Questions, Comments, or Observations Forum
- WK05: Any Questions, Comments, or Observations Forum
- WK06: Any Questions, Comments, or Observations Forum
- WK07: Any Questions, Comments, or Observations Forum
- WK10: Any Questions, Comments, or Observations Forum

Standard 6.1, Course Technology:

Instructional Videos

Microsoft Excel Moodle LMS

Standard 3.1, Assessment and Measurement:

WK04 (Ch06) Concepts Self-Assessment

- WK04 (Ch06) Problems Self-Assessment
- WK05 (Ch07) Concepts Self-Assessment
- WK05 (Ch07) Problems Self-Assessment
- WK06 (Ch08) Concepts Self-Assessment

WK06 (Ch08) Problems Self-Assessment
WK06 (Ch09) Concepts Self-Assessment
WK06 (Ch09) Problems Self-Assessment
WK07 (Ch10) Concepts Self-Assessment
WK07 (Ch10) Problems Self-Assessment
WK07 (Ch11) Concepts Self-Assessment
WK07 (Ch12) Concepts Self-Assessment
WK07 (Ch11/12) Problems Self-Assessment
WK10 Simulation Self-Assessment
Exam1
Exam2

Course: MBA8150 Business Analytics

Course-Level Objective(s):

5. Calculate probabilities and p-values to evaluate hypotheses about sample data to support decisions using Excel.

Module-Level Objective(s):

WK06: Sampling Methods, Estimating the Population Mean, and Confidence Intervals

To explain why populations are sampled. To identify four methods to sample a population. To identify sampling error. To construct a sampling distribution of the sample mean using Excel. To calculate probabilities of sampled data. To interpret a point estimate and confidence interval for a population mean. To calculate a point estimate and a confidence interval for a population mean using Excel. To calculate the required sample size to estimate a population mean using Excel.

WK07: Hypothesis Testing: One-Sample Tests. Two-Sample Tests and ANOVA

To apply the testing hypothesis procedures in Excel for both one sample and two samples. To recognize what a one-tailed and a two-tailed test of hypothesis should be used. To use a test of a hypothesis about a population mean for one sample by computing and interpreting pvalues. To use the t-statistic to test a hypothesis. To evaluate a hypothesis that two independent population means are equal, assuming that the population standard deviations are known and equal, and with unknown population standard deviations using Excel. To

Standard 4.1, Resources and Materials:

- "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al.
- Microsoft Excel, Instructor's Excel-06 Model, Excel-07 Model
- Resources and Assignments Web Page
- Instructional videos created by the instructor
- Self-study Guides and Terms

Standard 5.1, Learning Engagement and Activities:

Textbook Readings:

- Chapter 8: Sampling Methods, Read entire chapter.
- Chapter 9: Estimations and Confidence Intervals. Read chapter. Skip Confidence Level for a Proportion, and Finite-Population Correction Factor.
- Chapter 10: One-Sample Tests, Read chapter, skip Tests Concerning Proportions, Type II Error.
- Chapter 11: Two-Sample Tests, Read chapter, skip Two-Sample Tests about Proportions, Two-Sample Tests of Hypothesis: Dependent Samples, and Comparing Dependent and Independent Samples.
- Chapter 12: ANOVA, Chapter 12: Read from chapter beginning up to and including The ANOVA Test.
- Supplemental Reading Heizer Chapter 5 Simulation Modeling.

Instructional Videos (created by the Instructor) to be Watched:

- WK06 Lecture: Ch8, Sampling Methods and the Central Limit Theorem.
- WK06 Excel: Ch8, Model for Sampling Methods and the Central Limit Theorem.
- WK06 Lecture: Ch9, Confidence Limits.
- WK06 Excel: Ch9, Confidence Limits.
- WK07 Lecture: Ch10, Hypothesis Testing.
- WK07 Excel: Ch10, Hypothesis Testing.
- WK07 Two-Sample Tests
- WK07 Excel: Two-Sample Tests
- Making Chocolate Chip Cookies
- WK06 Reinforcement Lecture
- WK07 Reinforcement Lecture

Specific Activities

- Review Instructor provided chapter PowerPoint outlines
- Review self-study guides for each chapter

apply the F distribution and test a hypothesis that two population variances are equal using Excel.	 After completing readings, test your understanding with Concepts Self-Assessments. Redo/practice until you have achieved desired understanding Watch each instructor's Excel videos: Solve problems from the video. Then do Problems Self-Assessments using Excel. Redo/practice until you have achieved desired understanding. Watch each instructor's Reinforcement videos: Solve problems from this video as a review. Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare <u>Discussions</u> Review instructor's and student's posts in the following forums. Contribute your own as necessary. WK06: Any Questions, Comments, or Observations Forum
	WKU7: Any Questions, Comments, or Observations Forum
	Standard 6.1, Course Technology:
	Instructional Videos
	Microsoft Excel
	Moodle LMS
	Standard 3.1, Assessment and Measurement:
	WK06 (Ch08) Concepts Self-Assessment
	WK06 (Ch08) Problems Self-Assessment
	WK06 (Ch09) Concepts Self-Assessment
	WK06 (Ch09) Problems Self-Assessment
	WK07 (Ch10) Concepts Self-Assessment
	WK07 (Ch10) Problems Self-Assessment
	WK07 (Ch11) Concepts Self-Assessment
	WK07 (Ch12) Concepts Self-Assessment
	WK07 (Ch11/12) Problems Self-Assessment
	Exam2

Course: MBA8150 Business Analytics	Standard 4.1, Resources and Materials:
Course Lovel Objective(s):	Statistical recifiques in Business & Economics, 17th Ed., Douglas A. Lind, et. al.
Course-Level Objective(s).	INICrosoft Excel, Instructor's Excel-U8 Model, Excel-U9 Model
6. Calculate relationships between two or	Resources and Assignments Web Page
more sets of data using regression analysis	 Instructional videos created by the instructor
in Excel.	Self-study Guides and Terms
	Standard 5.1, Learning Engagement and Activities:
Module-Level Objective(s):	Textbook Readings:
	 Chapter 13: Regression and Correlation, Read chapter, skip Transforming Data.
WK08: Simple Linger Pagression and Correlation	 Chapter 14: Multiple Regression, Read chapter, skip Stepwise Regression.
WK08. Simple Linear Regression and Correlation	Instructional Videos (created by the Instructor) to be Watched:
To recognize the nurnose of correlation analysis. To	 WK08 Lecture: Ch13, Correlation and Linear Regression.
create scatter diagrams using Eycel. To interpret the	 WK08 Excel: Ch13, Correlation and Linear Regression.
relationship between two variables and confidence and	WK09 Lecture: Ch14, Multiple Regression.
prediction intervals. To calculate a correlation	WK09 Excel: Ch14, Multiple Regression.
coefficient to test the relationship between two	WK08 Reinforcement Lecture
variables using Excel. To apply regression analysis to	WK09 Reinforcement Lecture
estimate the linear relationship between two variables.	Specific Activities
including the slope of the regression equation using	 Review Instructor provided chapter PowerPoint outlines
Excel. To evaluate a regression equation's ability to	 Review self-study guides for each chapter
predict dependent values. To calculate confidence and	 After completing readings, test your understanding with Concepts Self-Assessments.
prediction intervals using Excel.	Redo/practice until you have achieved desired understanding
	Watch each instructor's Excel videos: Solve problems from the video. Then do Problems
WK09: Multiple Regression	Self-Assessments using Excel. Redo/practice until you have achieved desired
, ,	understanding.
To use multiple regression analysis to describe a	• Watch each instructor's Reinforcement videos: Solve problems from this video as a review.
relationship between several independent variables and	Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare
a dependent variable using Excel. To evaluate how well	<u>Discussions</u>
a multiple regression equation fits the data using Excel.	Review instructor's and student's posts in the following forums. Contribute your own as necessary.
To evaluate hypotheses about the relationships inferred	 WK08: Any Questions, Comments, or Observations Forum
by a multiple regression model. To evaluate the	 WK09: Any Questions, Comments, or Observations Forum
assumptions of multiple regression using Excel. To use a	Standard 6.1, Course Technology:
qualitative, dummy variable in multiple regression. To	Instructional Videos
interpret an interaction effect in multiple regression	Microsoft Excel
analysis using Excel.	Moodle LMS

Standard 3.1, Assessment and Measurement:
WK08 (Ch13) Concepts Self-Assessment
WK08 (Ch13) Problems Self-Assessment
WK09 (Ch14) Concepts Self-Assessment
WK09 (Ch14) Problems Self-Assessment
Exam2

Course: MBA8150 Business Analytics	Standard 4.1, Resources and Materials:
 Course-Level Objective(s): 7. Determine the best decision using optimization techniques and models in Excel. 	 "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al. Microsoft Excel, Instructor's Excel-10 Model Resources and Assignments Web Page Instructional videos created by the instructor Self-study Guides and Terms
Module-Level Objective(s): WK10: Optimization and Simulation To formulate a linear programming model, including an objective function and constraints, using Excel. To solve a linear programming model using Excel's Solver add-in. To use number manipulation, sliders, what-if data tables, and Goal Seek tools in Excel for optimization. To list the advantages and disadvantages of modeling with simulation. To compare decisions using Excel simulation models. To apply sensitivity analysis to simulation models using Excel.	 Standard 5.1, Learning Engagement and Activities: Textbook Readings: Optimizations and Simulation. Supplemental Readings: Heizer Chapter 19 Linear Programming. Instructional Videos (created by the instructor) to be Watched: WK10: Optimization and Simulation WK10: Transportation Model WK10: Excel Transportation Model Specific Activities Review Instructor provided chapter PowerPoint outlines Review self-study guides for each chapter After completing readings, test your understanding with Concepts Self-Assessments. Redo/practice until you have achieved desired understanding Watch each instructor's Excel videos: Solve problems from the video. Then do Problems Self-Assessments using Excel. Redo/practice until you have achieved desired understanding. Watch each instructor's Reinforcement videos: Solve problems from this video as a review. Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare Discussions Review instructor's and student's posts in the following forums. Contribute your own as necessary. WK10: Any Questions, Comments, or Observations Forum Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS Standard 3.1, Assessment and Measurement: WK10: Transportation Problem Self-Assessment Example Instructional Videos Self-Assessment Example Microsoft Excel Moodle LMS Standard 3.1, Assessment and Measurement: WK10

 Course: MBA8150 Business Analytics Course-Level Objective(s): Use simulation modeling techniques in Excel to evaluate uncertain business environments. 	 Standard 4.1, Resources and Materials: "Statistical Techniques in Business & Economics," 17th Ed., Douglas A. Lind, et. al. Microsoft Excel, Instructor's Excel-10 Resources and Assignments Web Page Instructional videos created by the instructor Self-study Guides and Terms
Module-Level Objective(s):WK10: Optimization and SimulationTo list the advantages and disadvantages of modeling with simulation. To compare decisions using Excel simulation models. To apply sensitivity analysis to simulation models using Excel.	 Standard 5.1, Learning Engagement and Activities: <u>Textbook Readings:</u> Optimizations and Simulation. Supplemental Readings: Bertsimas Chapter 5 Simulation Modeling. Instructional Videos (created by the Instructor) to be Watched: WK10: Optimization and Simulation Specific Activities Review Instructor provided chapter PowerPoint outlines Review self-study guides for each chapter After completing readings, test your understanding with Concepts Self-Assessments. Redo/practice until you have achieved desired understanding Watch each instructor's Excel videos: Solve problems from the video. Then do Problems Self-Assessments using Excel. Redo/practice until you have achieved desired understanding. Watch each instructor's Reinforcement videos: Solve problems from this video as a review. Prior to exam, repeat Concepts Self-Assessments and Problems Self-Assessment to prepare <u>Discussions</u> Review instructor's and student's posts in the following forums. Contribute your own as necessary. WK10: Any Questions, Comments, or Observations Forum Standard 6.1, Course Technology: Instructional Videos Microsoft Excel Moodle LMS Standard 3, Assessment and Measurement: WK10: Simulation Self-Assessment