**BUS 641**

**Quantitative Decision Making**

**Online MBA Program**

**Instructor Information:**

**Daniel Teodorescu, Ph.D.**

Cell Phone: 678-822-6179

Email: dt1@reinhardt.edu

Office Hours:  Wednesdays 6 – 8 pm

**Course Description:**

This course is centered on the theory and application of quantitative methods for decision making. Students will learn how to present and summarize data and analyze data as an aid to decision-making under uncertainty. Topics include descriptive statistics, probability theory, forecasting methods, hypothesis testing, analysis of variance, regression - as they apply to business and management problems.

**Course Objectives**  
After completing the course, the student will be able to:

1. deliver effective written and oral communication of quantitative data and results;
2. use statistical techniques to solve business related problems;
3. analyze and apply survey results to improve business related processes;
4. use hypothesis testing to aid in business decision making;
5. apply regression and forecasting techniques to business related needs.

**Reinhardt Credit Hour Statement: 3 Credit Hour Class**

Over 7 weeks, students will spend a variable number of minutes per week in online lectures, class discussions, and in preparation of class projects and research papers. Out-of-class work includes homework and preparation for exams and quizzes and is a variable number of minutes per week (6750 minutes for the semester).

**Required Text:**

Thurman, P. (2016). *MBA Fundamentals: Statistics*. (CreateSpace Publishing). ISBN – 13:  978-1515252498

**Sample list of peer-reviewed academic journals:**

*Journal of Advertising Research*

*International Journal of Business, Marketing, & Decision Science*

*Journal of Consumer Research*

*Journal of Management Research*

*Journal of Marketing Research*

This is just a sample. You have access to Reinhardt’s library and Galileo, which has thousands of peer-reviewed research sources.

**Technology:** We will work with Microsoft Excel and Tableau Public, which is a widely used data visualization tool.

**Canvas:**

You must have regular access to a computer and an Internet connection to participate in this course. All coursework is conducted online, and no in-person meetings will be held.

Canvas is the learning management system at Reinhardt.  If you need more information about how Canvas works you can review the training manual on-line.  The link is just below the link to Canvas.

**Here are directions for logging into the Canvas:**

Open a browser and go to:  [https://reinhardtuniversity.instructure.com/login/ldap](file:////login/ldap)

**Class Participation and Performance:**

**Reading Policy:**

Reading and understanding of subject matter are major components for this course.  Make sure to read all chapters, complete the reviews, and click submit. Neglecting to read chapters will result in failing assignment grades and hurt your overall grade.

**Assignments:**

**Threaded Discussions:**

In a traditional classroom, each student would be expected to attend class regularly and interact with the professor and with the other students. The online classroom is no different. The discussion forum allows you to reflect on each week’s material individually, but more importantly, it also allows you to discuss the material with one another and learn as a community. Each week’s discussion forum will have a topic which will either require you to respond to a reading or critically engage with an issue.

**Guidelines for Threaded Discussion Forum:**

* Your initial response to the topic will be posted no later than Wednesday at 11:55 PM.
* You will provide two (2) thorough responses to classmates’ posts by Sunday at 11:55 PM.

All responses should be thorough and expound on the concepts of the topic.  Do your research and include references in APA format.  Remember, this is a learning environment so ensure that you are adding knowledge and value to the topic.

**Practice Assignments:**

For each module you will be required to practice the skills learned using Tableau Public or Excel. If you encounter issues, there are plenty of instructional videos for both tools. Links to these videos will be posted within each module.

**Midterm Project**

Data Visualization with Tableau:

Students will use Tableau to construct a dashboard that includes four interactive charts using a dataset of their choice. You may collect your own data related to a concept business plan by conducting a survey of potential clients in Google Forms or SurveyMonkey.  The results will have to be exported to a csv file.  Alternatively, you may use one of the publicly available datasets at kaggle.com:

<https://www.kaggle.com/datasets>

**Final Project**

Multiple Linear Regression Project:

Students will conduct exploratory data analysis and multiple regression analysis using the Data Analysis add-on package in Excel and a dataset of their choice. The dataset can be the same dataset that was used for the midterm project.

**Netiquette:**

You are expected to discuss and collaborate on the topic.  Any abuse of the format, including degrading, bullying, sexual harassment, and/or any inappropriate comments will not be tolerated.  Disagreeing with another student is acceptable.  However, support your argument and do it in a civil manner.

Netiquette is a set of rules for how to communicate effectively and politely online.

Effective written communications are an important part of online learning. In an online environment, misunderstandings can easily occur when basic rules of Netiquette (online etiquette) are not followed, such as using texting abbreviations or USING ALL CAPITAL LETTERS IN WRITTEN COMMUNICATIONS. Therefore, please use the following guidelines when communicating in this course:

* Using ALL capital letters in online communication indicates you are yelling. Limited use of capitalized words is acceptable when emphasis is needed. Underscoring and italics can also be used for emphasis.
* Use a descriptive subject line in emails and forum postings.
* Include your name in all emails; we can’t always tell who you are based on your email address.
* No derogatory comments, ranting or vulgar language is acceptable in any form of communication in the course. Respect for others and their views is expected.

Please keep in mind that something considered offensive may be unintentional. If you are concerned about something that appears to be unacceptable, please inform the instructor via email.

**Late Submissions:**

**Threaded Discussions:**

The due date and time for all initial responses is listed above.  Ten percent (10%) will be deducted for each day the initial response is late.  No credit will be given for any initial post that is two days past due. No credit for any secondary posts will be provided that is not completed by Sunday.

**Practice Assignments:**

No late assignment will be accepted without prior approval. Special circumstances will arise and will be considered on a case-by-case basis.

**Class Schedule:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week** |  | | **Topic** | **Assignments** |
| **1** |  | | **The Language of Science** | Reading (Module 1)  Discussion #1  Practice Assignment #1 |
| **2** |  | | **Measures of Central Tendency** | Reading (Module 2)  Discussion #2  Practice Assignment #2 |
|  | |  | | |
| **3** |  | | **Measures of Variability**  **and Shape** | Reading (Module 3)  Discussion #3  Practice Assignment #3 |
| **4** |  | | **Differences in Means**  **Between Groups** | Reading (Module 4)  Discussion #4  Practice Assignment #4  Midterm Project |
|  | |  | | |
| **5** |  | | **Correlation & Simple**  **Simple**  **Linear Regression** | Reading (Module 5)  Discussion #5  Practice Assignment #5 |
|  | |  | | |
| **6** |  | | **Multiple Linear**  **Regression** | Reading (Module 6)  Discussion #6  Practice Assignment #6 |
|  | |  | | |
| **7** |  | | **ANOVA** | Reading (Module 7)  Final Project (Final) |
|  | |  | | |

**Instructional Methods:**

* 1. Threaded discussions in Canvas
  2. Required textbook and Powerpoint Presentation reading
  3. Use of Canvas for collecting assignments and distributing class materials.

**Grading and Evaluation Criteria:**

1. This class assumes the student is working in a business environment.
2. Considerable attention (and grading premium) will be given to following directions (both written and in class).
3. All assignments will be graded based upon the appropriateness of its presentation as well as on its content.
4. Corrections or appeals should be made within **two-weeks** of receiving your final grade.
5. **Grades:**  If you would like to discuss your grades, you may schedule a meeting outside of class.  I don’t discuss your grades in class because there isn’t time and there are privacy policies that protect your rights (so others aren’t aware of your grades).
6. **Grading:**  If you feel that you have received an “unfair” grade for an assignment you can opt to have the College Dean or any other faculty member he/she might assign to the project to grade the assignment and you will receive the grade that they feel is earned for the assignment.  However, if this grade is lower than the previously assigned grade by the instructor you will receive the final grade offered by the College Dean, so make sure you feel you have grounds for appeal.  Please speak directly with the instructor in an “out of class” meeting concerning your grades.
7. **Academic Honesty:**  Please see the section of the general catalog which describes the college policy on academic honesty. The policy provides descriptions of what violates the policy and of what penalties may be imposed for violations.  Failing grades will be assigned for any work which does not meet the standards of academic honesty.  **Any violation of academic honesty can result in a failing grade in a course.** It is very easy to copy/share your files.  However, if you don't complete the work you won't learn from it & your exam grade will reflect this failure on your part.  If I detect or observe sharing of work, you will receive an F.

**Grade Scale**

|  |
| --- |
| The maximum number of point for each assessment is 100. Following are the weights of the assignments in final grade:    Weekly Threaded Discussions 18% (3% each)  Weekly Practice Assignments 24% (4% each)  Midterm Project 25%  Final Course Project 33%  **Total 100%** |
|  |

|  |  |
| --- | --- |
| **Grading Scale** | |
| **Percentage of Points Earned** | **Corresponding Letter Grade** |
| 90 to 100% | A |
| 80 to 89% | B |
| 70 to 79% | C |
| 0 to 69% | F |

**Attendance**

You are required to participate weekly in the discussions.  Attendance will be measured based on your online activity throughout the course.

**Additional Support for the Course:**

**ASO Students**:  Please notify me on the first day of class (after class—this is something we don’t’ need to discuss w/the entire class) that you are an ASO student and if you need a note taker or need additional time testing, so we can prepare for the assistance in advance.  If you fail to notify me in advance, I cannot help you with alternate testing schedule, etc. (meaning, when I pass out the test—don’t ask for help then!)  Students with disabilities needing accommodations must contact Academic Support Office prior to contacting me during office hours.

**Office 365**: Through your technology fee at Reinhardt, you receive Office 365, which gives you access to Office 2013 for up to 5 devices.  You can also download Office 2013 on a computer for just the time you are working on that machine (Office on Demand).  Therefore, there are never any excuses for you to not do your assigned homework outside of class.  Office 365 will be available to you, as long as you are a Reinhardt student this throughout the program.  Through Office 365, you can view your Reinhardt email, save documents to OneDrive (cloud-based server), so you can access your files anywhere, & manage your calendar.  Remember, the online course is subject to WIFI connectivity. Remember, the number one rule of management is to manage you first.  Therefore, create contingencies for outages, work schedules, unplanned emergencies.  **Expect the best but prepare for the worst.**