



**TENTATIVE SYLLABUS - ECO 502.01W**

**Business and Eco Statistics**

**Fall – 2024 (8/26 thru 12/13/24)**

**Instructor: Dr. Chuck Arize**

**Office Location: BA 212**

**Office Phone (903) 886-5691**

**Office Fax (903) 886-5601**

**Office Hours: Wednesday, 4-5 p.m.; Thursday, 4-5 p.m.; Friday, 5-6 p.m.; by appointment (via Zoom).**

Zoom Link: <https://tamuc.zoom.us/j/92290733867?pwd=ZHxOZd6HSg6sIDxravaQnQYt4ENJE2.1>

**Friday 1-3 p.m.(F2F)**

**University mail Address: [Chuck.Arize@tamuc.edu](mailto:Chuck.Arize@tamuc.edu) (preferred contact method)**

**Preferred Form of Communication: Web-Based Class**

**Communication Response Time:** We prefer that students communicate via email. We will respond to your emails within 24 hours, except on weekends.

**Important Dates:** Please refer to the academic calendar at <https://calendar.tamuc.edu/academic>

In order to get grades for assignments and exams, you must submit the files: “Academy Dishonesty” and “Personal Information” under the D2L. Please find out how to turn in these files into D2L

**Textbook(s) Required: Here is the book that can be used for the class.**

D. A. Lind/W. G. Marchal/S. A. Wathen, Statistical Techniques in Business & Economics – McGraw Hill Irwin, 17e Year: 2018, ISBN: 9781259666360 (978-1-259-66636-0).

**This is an online class and requires the student to be more SELF-DIRECTED. You are responsible for all the material in the chapters assigned whether I discuss that material in the class live or NOT. When we have a class live it is an opportunity to touch on a subject you should have already read over. Not a time to teach everything.**

**\*\*CHECK YOUR EMAIL AND D2L DAILY\*\***

## THIS SYLLABUS IS TENTATIVE

### IMPORTANT NOTICE

**\*\*\* Note that this is a tentative syllabus, meaning that I can change (a) certain dates for the exams and (b) Certain topics to be covered.**

**\*\*\* Also, note that I do not return your graded paper, but upon request I will be able to tell you what you missed on a test via e-mail. (Request period is 2 days after receiving an exam grade)**

**\*\*\* Please do not ask for an early, delayed or special exam, as we treat all the students equally and fairly. Since the exam dates are already provided to you in advance, thus you need to plan your holidays in advance such that it does not coincide with the exam days.**

**\*\*\* Any communication, in any form with other students relating to the Exam content while the exam is open will be considered cheating and the penalty would apply as determined by the professor thus refrain at all cost.**

You can find useful materials under the D2L content tab to help you success in this class. The previous recorded presentation videos and slides can be found in D2L.

### **Course Description:**

This course introduces students to descriptive statistics (measures of central tendency and variation and representing data graphically) and statistical inference. Inference will involve sampling techniques, estimation, hypothesis-testing and simple regression.

Applications emphasize continuous improvement of products and services. **Prerequisites:** Lvl U MATH 176 Min Grade C or Lvl U MATH 1325 Min Grade C

### **Course Objectives**

The objective of this course is to provide an understanding for the undergraduate business student on statistical concepts to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression, and correlation analysis, multiple regression and business/economic forecasting. By completing this course, the student will learn to perform the following:

- 1) Calculate and apply measures of location and measures of dispersion.
- 2) Apply discrete and continuous probability distributions to various business problems.
- 3) Understand the concepts of null and alternative hypotheses, and type I and type II errors, and perform tests of hypotheses. Moreover, the student is able to calculate the confidence interval for a population parameter for a single mean, including use of the “t” and the “Z” tests.
- 4) Compute and interpret the results of Bivariate and Multivariate Regression and Correlation Analysis.

## A. Course Structure

### Unit 1: Chapter 1 to Chapter 3;

**Chapter 1: What is statistics?**

**Chapter 2: Describing Data: Frequency Tables, Frequency Distributions and Graphic Presentations.**

**Chapter 3: Describing Data: Numerical measures**

### Unit 2: Chapter 4 to Chapter 7;

**Chapter 5: A Survey of Probability Concepts.**

**Chapter 6: Discrete Probability Distributions**

**Chapter 7: Continuous Probability Distributions**

### Unit 3: Chapter 8 to Chapter 10;

**Chapter 8: Sampling Methods and the Central Limit Theorem**

**Chapter 9: Estimation and Confidence Interval**

**Chapter 10: One Sample Test of Hypothesis**

### Unit 4: Chapter 11 to Chapter 13;

**Chapter 11: Linear Regression and Correlation**

**Chapter 13: Forecasting**

## B. Grading Scale: A = 90%-100%

B = 80%-89.99999%

C = 70%-79.99999%

D = 60%-69.99999%

F = 59.99999% or Below

## C. Grading Assessment: The final course grade will be based on the following items:

	Points	Weight %
1. Quiz 1 & Excel	120	10%
2. Midterm Exam	100	20%
3. Final Exam	100	30%
4. Homework	300	30%
5. Project 20%	100	10%
<b>Total</b>	<b>720</b>	<b>100%</b>

## Tentative Schedule Fall 2024—\*\*8/26/24 - 12/13/24

Week	Due Date	Text	Details
Week 1 (8/26)		Introduction	
Week 2 (9/1)	[Aug 26- Sept 2]	Syllabus: Chapter 1	Quiz 1
Week 3 (9/8)	[Sept 2 – Sept 9]	Chapters 2 & 3	Quiz 3
Week 4 (9/15)	[Sept 9 – Sept 16]	Chapters 4 &5	Quiz 5
Week 5 (9/22)	[Sept 16 – Sept 23]	Chapter 6	Homework 1
Week 6 (9/29)	[Sept 23 – Sept 30]	Exam I	
Week 7 (10/6)	[Sept 30 – Oct 7]	Chapters 8 & 9	Unit 3
Week 8 (10/13)	[Oct 7 – Oct 14]	Chapters 10 & 11	Homework 2
Week 9 (10/20)	[Oct 14 – Oct 21]	Exam II	Chapters 8 through 11
Week 10 (10/27)	[Oct 21 – Oct 28]	Chapter 12	Unit 4
Week 11 (11/3)	[Oct 28 – Nov 4]	Chapters 13	
Week 12 (11/10)	[Nov 4 – Nov 11]	Chapters 14 & 15	
Week 13 (11/17)	[Nov 11 – Nov 18]	Chapter 16	
Week 14 (12/1)	[Nov 27 – Dec 2]	PROJECT/Special Topics	Excel Submission
Week 15 (12/8)	[Dec 2 – Dec 9]	TBA	Homework 3
Week 16 (12/13)	[Dec 9 – Dec 13]	Final Exam	Chapters 12 through 16

Note: All assignments are due by **11:59 PM** on the date shown & **the syllabus is tentative.**

**\*\*\***When we have a live class (if only 3 or fewer students attend, then after 15 minutes, I will sign off, and there will be no class). Class-live is an opportunity to touch on a subject you should have already read about - Not time to teach everything.

## **Student Responsibilities/Tips for Success in the Course**

1. Students are expected to:
  - a. Read text assignments as scheduled.
  - b. Read the chapter Instructions provided by the Professor.
  - c. Work the assigned homework problems independently. Submit the homework problems due as indicated in the appropriate submission box of D2L Brightspace.
  - d. Read the regular announcements in the Announcement section of the e-college and download the posted materials with download links.
2. This syllabus is tentative for the semester. It is meant to be a guide. Certain topics may be stressed more or less than indicated in the text books and, depending on class progress, and certain topics may be omitted.
3. Homework problems are assigned and graded bi-weekly. Solution to Assignment problems will be provided after the deadline for submission.
4. I provide detailed Instructions with examples for each Chapter. I post the links to the Chapter Instructions in the Doc sharing Section.
5. Feel free to ask questions through email or other online tools, especially the virtual office. You can ask any question related to the course topics in the virtual office and I try to answer them within few hours (maximum 24 to 48 hours). In the virtual office or students' forum you can also try to answer others' questions. But you are expected to maintain etiquette and decency in your responses.
6. Demeanor: "All students enrolled at the university shall follow tenets of common decency and acceptable behavior conducive to a positive learning environment". See Students Guide Book.
7. Attendance Policy: In the online course there is no class attendance. But assignments and tests have corresponding due dates

### **NOTE THE FOLLOWING**

1. This syllabus is tentative for the semester. It is meant to be a guide. Certain topics may be stressed more or less than indicated in the class notebooks and, depending on class progress, certain topics may be omitted.
2. Homework problems may be recommended on a regular basis.
3. Missed examination: A missed examination will be considered as 'F'.  
Even though there are live classes every week. Students should go over the material on their own and not all the syllabus is covered in live lectures it is the responsibility of the students to cover the whole syllabus.

### **Late Assignment Policy:**

Late assignments will accrue a penalty of 10 points per day the assignment is late. An assignment is considered one day late if it is submitted past the identified due date/time. It is considered two days late if it is submitted any more than 24 hours past the identified due date/time, and so forth. This includes weekends! Once an assignment is more than 10 days late, it will become a zero and will not be accepted for credit.

If a student wants an extension for an assignment, this must be received no less than 48 hours before the assigned due date/time. Extensions are not guaranteed, and are at the discretion of the instructor. Extensions may include a late penalty.

**Late Exams:** An exam that is turned in late will be given a penalty of **10 points per day late** *unless* your instructor is notified *prior* to the due date and the excuse is a legitimate medical one or is officially approved. Acceptable documentation, such as a doctor's note, may be required.

- As with all work in this course, the exams must be completed individually.

## Netiquette

The discussion boards are created to provide an opportunity for students to actively engage in meaningful conversation on a particular topic or issue. You are encouraged to provide your honest viewpoint, but be respectful of the views of your classmates.

## Do's

1. Do use correct grammar and spelling.
  2. Do read the prompt, reflect on what you would like to say, and review what you've written before posting!
  3. Do respect the privacy, beliefs, and opinions of your classmates.
  4. Do challenge each other's ideas but not each other personally.
  5. Do remember to treat others as you would want to be treated.
  6. Do stick to the discussion prompt at hand when posting to a forum.
- Do use humor and sarcasm carefully. Students cannot see your facial expressions or hear any voice inflections.

## Don'ts

1. Don't type in ALL CAPS. This is regarded as shouting.
2. Don't rant or rage. This is not the place to vent your anger or start a fight.
3. Don't make inappropriate comments. Objectionable, sexist, or racist language will not be tolerated.

In the discussion forums you will post assignments and discuss your work with others in the class or in your groups. These are public forums, so whatever is posted can be seen by everyone in the course, including the instructors. If you want to send a private message, use individual email. The Class Lounge discussion forum is a public space for conversation with your classmates on any topic or question.

## General Comments:

1. Each student is expected to check his/her **university** e-mail (e.g. [rt42@tamcu.edu](mailto:rt42@tamcu.edu)) frequently for course announcements. E-mails **will not** be sent to personal e-mail addresses (e.g. [goldlion@yahoo.com](mailto:goldlion@yahoo.com)). This is to ensure privacy.
2. You will most likely need a calculator for this course. A standard calculator should be sufficient. A graphing calculator is not necessary.

## Student Responsibilities/Tips for Success in the Course

1. Students are expected to:
  - a. Read text assignments as scheduled.
  - b. Read the chapter Instructions provided by the Professor.
  - c. Work the assigned homework problems independently. Submit the homework problems due as indicated in the appropriate submission box of D2L Brightspace.
  - d. Read the regular announcements in the Announcement section of the e-college and download the posted materials with download links.
2. This syllabus is tentative for the semester and is meant to be a guide. Certain topics may be stressed more or less than indicated in the textbooks, and, depending on class progress, specific topics may be omitted.
3. Homework problems are assigned and graded bi-weekly. Solution to Assignment problems will be provided after the deadline for submission.
4. I provide detailed Instructions with examples for each Chapter and post the links to the Chapter Instructions in the Document sharing Section.
5. Feel free to ask questions through email or other online tools, especially the virtual office. You can ask any question related to the course topics in the virtual office, and I try to answer them within a few hours (maximum 24 to 48 hours). You can also try to answer others' questions in the virtual office or students' forum. However, you are expected to maintain etiquette and decency in your responses.
6. Demeanor: "All students enrolled at the university shall follow tenets of common decency and acceptable behavior conducive to a positive learning environment." See Students Guide Book.
7. Attendance Policy: The online course has no class attendance. But assignments and tests have corresponding due dates

## TECHNOLOGY REQUIREMENTS

- To fully participate in online courses, you will need to use a current Flash enabled browser. For PC users, the suggested browser is Google Chrome or Mozilla Firefox. For Mac users, the most current update of Firefox is suggested.
- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - o 512 MB of RAM, 1 GB or more preferred
  - o Broadband connection required courses are heavily video intensive
  - o Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - o Sound card, which is usually integrated into your desktop or laptop computer
  - o Speakers or headphones.
  - o \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site](http://www.java.com/en/download/manual.jsp)  
<http://www.java.com/en/download/manual.jsp>



- Current anti-virus software must be installed and kept up to date.
- Run a browser check through the Pearson Learning Studio Technical Requirements website.  
[Browser Check](http://help.ecollege.com/LS_Tech_Reg_WebHelp/en-us/#LS_Technical_Requirements.htm#Browse)  
[http://help.ecollege.com/LS\\_Tech\\_Reg\\_WebHelp/en-us/#LS\\_Technical\\_Requirements.htm#Browse](http://help.ecollege.com/LS_Tech_Reg_WebHelp/en-us/#LS_Technical_Requirements.htm#Browse)

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - o [Adobe Reader](https://get.adobe.com/reader/) <https://get.adobe.com/reader/>
  - o [Adobe Flash Player \(version 17 or later\)](https://get.adobe.com/flashplayer/) <https://get.adobe.com/flashplayer/>
  - o [Adobe Shockwave Player](https://get.adobe.com/shockwave/) <https://get.adobe.com/shockwave/>
  - o [Apple Quick Time](http://www.apple.com/quicktime/download/) <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.
- For additional information about system requirements, please see: [System Requirements for Learning Studio](https://secure.ecollege.com/tamuc/index.learn?action=technical)  
<https://secure.ecollege.com/tamuc/index.learn?action=technical>

## ACCESS AND NAVIGATION

Pearson Learning Studio (eCollege) Access and Log in Information

This course will be facilitated using Pearson Learning Studio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to [myLeo](http://www.tamuc.edu/myleo.aspx).  
<http://www.tamuc.edu/myleo.aspx>

**To log in to the course, you will need your CWID and password. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).**

It is strongly recommended that you perform a “Browser Test” before the start of your course. To launch a browser test, login to Pearson Learning Studio, click on the “My Courses” tab, and then select the “Browser Test” link under Support Services.

### Pearson Learning Studio Student Technical Support

Texas A&M University-Commerce provides students technical support in the use of Pearson

Learning Studio.

Technical assistance is available 24 hours a day/ 7 days a week.

If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certain material, etc.) please contact the Pearson Learning Studio Help Desk, available 24 hours a day, seven days a week.

The student help desk may be reached by the following means 24 hours a day, seven days a week.

**Chat Support:** Click on '*Live Support*' on the tool bar within your course to chat with a Pearson Learning Studio Representative.

**Phone:** 1-866-656-5511 (Toll Free) to speak with Pearson Learning Studio Technical Support Representative.

**Email:** [helpdesk@online.tamuc.org](mailto:helpdesk@online.tamuc.org) to initiate a support request with Pearson Learning Studio Technical Support Representative.

**Accessing Help from within Your Course:** Click on the '*Tech Support*' icon on the upper left side of the screen inside the course. You then will be able to get assistance via online chat, email or by phone by calling the Help Desk number noted below.

**Note:** Personal computer problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, an Internet cafe, or a bookstore, such as Barnes & Noble, etc.

Policy for Reporting Problems with Pearson Learning Studio

Should students encounter Pearson Learning Studio based problems while submitting assignments/discussions/comments/exams, the following procedure **MUST** be followed:

1. Students must report the problem to the help desk. You may reach the helpdesk at [helpdesk@online.tamuc.org](mailto:helpdesk@online.tamuc.org) or 1-866-656-5511
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and to provide me with the helpdesk ticket number
4. At that time, I will call the helpdesk to confirm your problem and follow up with you

**PLEASE NOTE:** Your personal computer/access problems are not a legitimate excuse for filing a ticket with the Pearson Learning Studio Help Desk. You are strongly encouraged to check for compatibility of your browser **BEFORE** the course begins and to take the Pearson Learning Studio tutorial offered for students who may require some extra assistance in navigating the Pearson Learning Studio platform. **ONLY** Pearson Learning Studio based problems are legitimate.

### Internet Access

An Internet connection is necessary to participate in discussions and assignments, access readings, transfer course work, and receive feedback from your professor. View the requirements as outlined in Technology Requirements above for more information.

### myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu) or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at [myLeo](https://leo.tamuc.edu). <https://leo.tamuc.edu> **Learner Support**

Go to the following link [One Stop Shop](http://www.tamuc.edu/admissions/onestopshop/)- created to serve you by attempting to provide as many resources as possible in one location.

<http://www.tamuc.edu/admissions/onestopshop/>


Go to the following link [Academic Success Center](http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/)- focused on providing academic resources to help you achieve academic success.

<http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/>

### FREE MOBILE APPS

The Courses apps for phones have been adapted to support the tasks students can easily complete on a smaller device. Due to the smaller screen size course content is not presented.

The Courses app is free of charge. The mobile Courses Apps are designed and adapted for different devices.

	<b>App Title:</b>	<b>iPhone</b> – Pearson LearningStudio Courses for iPhone <b>Android</b> – LearningStudio Courses - Phone
	<b>Operating System:</b>	<b>iPhone</b> - OS 6 and above <b>Android</b> – Jelly Bean, Kitkat, and Lollipop OS
	<b>iPhone App URL:</b>	<a href="https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8">https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8</a>
	<b>Android App URL:</b>	<a href="https://play.google.com/store/apps/details?id=com.pearson.lsphone">https://play.google.com/store/apps/details?id=com.pearson.lsphone</a>

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

- View titles/code/Instructor of all Courses enrolled in online
- View and respond to all discussions in individual Courses
- View Instructor Announcements in individual Courses
- View Graded items, Grades and comments in individual Courses
- Grade to Date
- View Events (assignments) and Calendar in individual Courses
- View Activity Feed for all courses
- View course filters on activities
- View link to Privacy Policy
- Ability to Sign out
- Send Feedback

## COMMUNICATION AND SUPPORT

Students can email to communicate with Professor. The email will be responded during the week day. However the Subject of the Email should have the course name as “**302– Spring 2023 - 01W**”

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### Course Specific Procedures

Attendance/Lateness, Late Work, Missed Exams and Quizzes and Extra Credit

### Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### University Specific Procedures

#### Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See current Student Guidebook).

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

[Netiquette](#)

<http://www.albion.com/netiquette/corerules.html>

ADA Statement

### Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

#### Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [Rebecca.Tuerk@tamuc.edu](mailto:Rebecca.Tuerk@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race,

color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

**Campus Concealed Carry**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

**Rubric:**

<b>Criteria</b> (Course Objectives)	<b>1 (Unsatisfactory)</b>	<b>2 (Emerging)</b>	<b>3 (Proficient)</b>	<b>4(Exemplary)</b>
1) Learn how to calculate and apply measures of location and measures of dispersion -- grouped and ungrouped data cases.	Student cannot and apply any measures of location and Measures of dispersion for grouped and ungrouped data.	Student can and apply some measures of location and measures of dispersion for grouped and ungrouped data.	Student can and apply most measures of location and measures of dispersion for grouped and ungrouped data.	Student can and apply all measures of location and measures of dispersion for grouped and ungrouped data.
2) Learn how to apply discrete and continuous probability distributions to various business problems.	Student cannot apply discrete and continuous probability distributions to any business problems.	Student can apply discrete and continuous probability distributions to some business problems.	Student can apply discrete and continuous probability distributions to most of business problems.	Student can apply discrete and continuous probability distributions to all of business problems.
3) Understand the hypothesis testing:  3.1 Be able to perform Test of Hypothesis  3.2 calculate confidence interval for a population parameter for single sample and two sample cases.  3.3 Understand the concept of p-values.	3.1 Student cannot perform the test of hypothesis  3.2 Student cannot calculate confidence interval for a population parameter for single sample and two sample cases.  3.3 Student doesn't understand the concept of p-value.	3.1 Student can perform some test of hypothesis  3.2 Student can calculate some confidence interval for a population parameter for single sample and two sample cases.  3.3 Student understands some part of the concept of p-value.	3.1 Student can perform most test of Hypothesis  3.2 Student can calculate most confidence interval for a population parameter for single sample and two sample cases.  3.3 Student understands most part of the concept of p-values.	3.1 Student can perform all test of Hypothesis  3.2 Student can calculate all confidence interval for a population parameter for single sample and two sample cases.  3.3 Student understands the entire concept of p-values.
4) Learn non-parametric test such as the Chi-Square test for Independence as well as Goodness of Fit.	4) Student doesn't know non-parametric test such as the Chi-Square test for Independence as well as Goodness of Fit.	4) Student knows some parts of non-parametric test such as the Chi-Square test for Independence as well as Goodness of Fit.	4) Student knows most parts of non-parametric test such as the Chi-Square test for Independence as well as Goodness of Fit.	4) Student knows all parts of non-parametric test such as the Chi-Square test for Independence as well as Goodness of Fit.

<p>5) Understand regression analysis:</p> <p>5.1 Be able to compute and interpret the results of Bivariate Regression</p> <p>5.2 Be able to compute and interpret the results of Multivariate Regression.</p> <p>5.3 Be able to compute and interpret Correlation Analysis</p> <p>5.4 Be able to perform ANOVA and F-test.</p> <p>5.5 Be able to understand both the meaning and applicability of a dummy variable.</p> <p>5.6 Be able to understand the assumptions which underline a regression model.</p> <p>5.7 Be able to perform a multiple regression using computer software.</p>	<p>5.1 Student cannot compute and interpret the results of Bivariate Regression</p> <p>5.2 Student cannot compute and interpret the results of Multivariate Regression</p> <p>5.3 Student cannot compute and interpret Correlation Analysis</p> <p>5.4 Student cannot solve any questions regarding ANOVA and F-test.</p> <p>5.5 Student cannot apply the dummy variable to solve any questions.</p> <p>5.6 Student does not understand the assumptions which underline a regression model.</p> <p>5.7 Student is unable to perform a multiple regression using computer software.</p>	<p>5.1 Student can compute and interpret some of the results of Bivariate Regression</p> <p>5.2 Student can compute and interpret some of results of Multivariate Regression</p> <p>5.3 Student can compute and interpret some parts of Correlation Analysis</p> <p>5.4 Student can solve easy questions regarding ANOVA and F-test.</p> <p>5.5 Student cannot apply the dummy variable to solve some questions.</p> <p>5.6 Student understands some parts of the assumptions which underline a regression model.</p> <p>5.7 Student is able to perform a multiple regression using computer software for easy questions.</p>	<p>5.1 Student can compute and interpret most of the results of Bivariate Regression</p> <p>5.2 Student can compute and interpret most of results of Multivariate Regression</p> <p>5.3 Student can compute and interpret most parts of Correlation Analysis</p> <p>5.4 Student can solve medium-hard questions regarding ANOVA and F-test.</p> <p>5.5 Student cannot apply the dummy variable to solve most questions.</p> <p>5.6 Student understands most parts of the assumptions which underline a regression model.</p> <p>5.7 Student is able to perform a multiple regression using computer software for medium-hard questions.</p>	<p>5.1 Student can compute and interpret all of the results of Bivariate Regression</p> <p>5.2 Student can compute and interpret all of results of Multivariate Regression</p> <p>5.3 Student can compute and interpret all parts of Correlation Analysis</p> <p>5.4 Student can solve difficult questions regarding ANOVA and F-test.</p> <p>5.5 Student cannot apply the dummy variable to solve all the questions.</p> <p>5.6 Student understands all parts of the assumptions which underline a regression model.</p> <p>5.7 Student is able to perform a multiple regression using computer software for difficult questions.</p>
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