

QMB 3200: Business and Economic Statistics II

CRN: 23300, Section # 591 (f2f In-Class Lecture section), 3 Credit Hours CRN: 23297, Section # 521 (100% On-line section), 3 Credit Hours

COURSE SYLLABUS

Semester: Spring 2023

Section # 591 (f2f In-Class Lecture section)

Class Meeting Day & Time: Tuesday 6:00 - 8:45 pm

Class Meeting Location: USF Sarasota-Manatee Campus Building-Room: SMC-B229

Section # 521 (100% Online section – Asynchronous – Recordings will be made available)

Class Meeting Days: None (Tuesday will be treated as the day of the class)

On-line section students have the OPTION to attend the class remotely Live Synchronous on Microsoft <u>Teams</u>. You will find Teams meetings on your USF Email calendar and Microsoft Teams calendar by Jan. 10th. All online students are highly encouraged to do so for their own benefit given the nature of subject matter.

Class Meeting Day & Time: Tuesday 6:00 – 8:45 pm

<u>On-line section students also have the OPTION (if they so choose to do so) to attend the class in person</u>. But please request by e-mail to get instructor permission to reserve a seat depending on availability well ahead of time. Walk-in without permission is not allowed.

Class Meeting Day & Time: Tuesday 6:00 - 8:45 pm

Class Meeting Location: USF Sarasota-Manatee Campus Building-Room: SMC-B229

Whatever it takes for you to learn well and succeed, please do so.

Instructor: Dr. Ramakrishna Govindu

Office Location: **USF Sarasota-Manatee Campus Building-Room: SMC-C229**Office Hours: **To be held remotely on Microsoft Teams – Schedule to be announced.**

Email: RGovindu@usf.edu

Teaching Assistant: Ms. JoAnn Stolarski

Office Hours: To be held remotely on Microsoft Teams - Schedule to be announced.

Email: JStolarski@usf.edu

Note: This is a 3-credit hour course. A 3-credit hour course means, 3 hours per week of in-class instruction over the semester. Time for course preparation and reading assignments; and time for completing homework assignments, quizzes, and exams will be extra (out-side of instructional time) just like any other course students take.

I. Welcome!

Dear Students, Welcome to a new semester. In this "Business and Economic Statistics II" course; you will learn critical thinking, problem solving, analytical skills that would help you throughout your career in business and industry. The purpose of QMB 3200 is to help students in acquiring skills to apply statistical tools and techniques in business analytics and decision making in various business environments. This course integrates Excel into the course. When mastered, and through practice and experience, these skills can help get into high paying jobs, and help with career development.

II. University Course Description

Simple linear regression and correlation; multiple regression and model building; forecasting models; analysis of variance; chi-square tests; nonparametric methods.

III. Course Prerequisites

MAC 2233 or MAC 2241, QMB 2100.

IV. Course Purpose

QMB 3200 is the second course in Statistics. It builds upon the foundation established in your first course in Statistics (QMB 2100 or its equivalent). The purpose of QMB 3200 is to prepare students to appreciate the role statistics plays in business analytics and decision making. In particular, the course emphasizes and prepares students to "learn concepts and methods", "solve/analyze problems", "interpret reports and extract useful information for the decision makers, and "be ready to apply" the concepts and methods in practice in industry or in research, rather than learn calculations alone. This is a Business Foundation course with a minimum "C-" grade is required

(https://catalog.usf.edu/content.php?catoid=13&navoid=1486#college-level-requirements).

V. Course Topics

- Quick Review of Concepts and Topics (Probability Distributions, Estimation, and Hypothesis Testing) from QMB 2100 that are important for QMB 3200 – to be covered if required to help students catch-up, depending on the need at individual campuses.
- Categorical Data Analysis Chi-square Tests
- Analysis of Variance
- Simple Linear Regression
- Multiple Regression
- Time Series Analysis and Forecasting

VI. Course Objectives

Through this course, students would develop a working knowledge and expertise on how to apply statistical methods on business problems. In particular, students will be able to:

- 1. Strengthen fundamentals, formulate hypothesis from the problem statement, and learn to perform analyses,
- 2. Interpret statistical results generated from a selected software program and communicate the findings in simple terms to the decision-maker.
- 3. Identify opportunities for and learn to apply statistical tests on Categorical data such as contingency analysis and goodness of fit tests
- 4. Explain the basis and apply Analysis of Variance (ANOVA) techniques on data from experiments/observational studies in business
- 5. Identify application opportunities and learn to perform simple linear and multiple regression analyses, extract valuable information, and apply the results for predictions and improved business decision-making

6. Analyze Time-series patterns and learn to apply forecasting methods for various business applications

VII. Student Learning Outcomes

At the conclusion of the course students should be able to:

- 1. Develop hypothesis from a problem statement, choose an appropriate statistical technique to apply given the problem context, perform the analysis; and most importantly, interpret the reports/results, and develop well-reasoned and evidence-based conclusions
- 2. Learn to perform hypotheses tests on categorical data using Chi-Square goodness of fit tests and tests of independence
- 3. Understand the principles of designed experimentation, identify an appropriate experimental design to perform Analysis of Variance (ANOVA) on data from experimental/observational studies; develop hypothesis statements, perform the analysis, understand, and interpret ANOVA output from a select software; and develop conclusions
- 4. Develop both simple and multiple regression models from given data, understand and interpret regression analysis output from a select software package, test hypotheses, and infer relationships between variables, and make predictions on response.
- 5. Develop an understanding for patterns in Time Series data, select appropriate forecasting techniques given the pattern, develop forecasts and forecast accuracy measures to identify the best forecasting method

VIII. Required Texts and/or Readings and Course Materials

Modern Business Statistics with Microsoft Excel | 7th Edition by David R. Anderson/Dennis J.
 Sweeney/Thomas A. Williams/Jeffrey D. Camm/James J. Cochran/Michael J. Fry/Jeffrey W. Ohlmann,
 CENGAGE, ISBN: 9780357131381

[After a very quick review of topics from Statistics I (Chapters 1-9), the primary focus of QMB 3200 will be on: Chapters 12, 13, 14, 15, and 17]

You can buy a new textbook, a used copy, rent it, or buy an eBook – whatever works out to be cheaper for you.

 Course Material (Word Documents) by Dr. Anurag Agarwal, Dr. Ramakrishna Govindu, and Dr. Kwangtae Park

These mandatory documents are posted on Canvas "free-of-cost" for student use. These documents integrated Excel into them. <u>Usage of Excel is a mandatory in this course</u>.

In this course we use "Microsoft Excel" extensively. Usage of other spreadsheet applications such as
Google Sheets, OpenOffice, and others is not acceptable. If you don't have Microsoft Office on your
system, as a student of USF you are allowed free download and installation of Microsoft Office for
personal use. Check out the info at: https://www.usf.edu/it/documentation/office365/personal-download.aspx.

IX. Supplementary (Optional) Texts and Materials

Additional supplementary (optional) documents may be posted on Canvas if and as needed for the benefit of students. These documents will help students expand their knowledge. However, students will not be tested on the content.

X. How to Succeed in this Course

There is no way to do well in the course without learning. Just follow all the instructions and directions provided in the detailed schedule in this document and in weekly communications. Always be on time with learning and complete all the tasks on time. Follow the process steps as outlined here. Do not skip any step or short-circuit the process in anyway.

i. Complete the reading assignments before class by Monday every week. Practice solving solved example problems in the course material word documents and in the textbook.

- ii. In class (f2f) section students attend classes in person on all Tuesdays for the entire duration. Online section students play and listen/view all the recordings (posted Tuesday nights) in full do not skip any content. If you choose to do so, you also have the option to attend classes live on Microsoft Teams on Tuesdays.
- iii. Practice solving the solved example problems discussed in class on the PPT and in the demo video recordings on your own first. If you are able to solve those problems correctly on your own, that is an indication that learning has happened.
- iv. Start working on homework assignment problems on Wednesday in Excel. The sooner you get started, the more time you will have to work on them and to seek help if and as needed. Do not wait until the day of submission or even the final hours to get started on HW assignments. Submit your homework report (as an Excel file) before the deadline typically 11:59 p.m. the following Monday (see the detailed schedule in this document for the deadlines). No late submissions are allowed for any reason. Students must meet deadlines for their own learning.
- v. Prepare well and submit Quiz before its deadline typically 11:59 p.m. the following Monday (see the detailed schedule in this document for the deadlines). No late submissions are allowed for any reason. Students must meet deadlines for their own learning.
- vi. Complete all the tasks assigned HW assignments, Quizzes, and Exams. HW assignments is where you learn. Don't miss work and lose points unnecessarily.
- vii. Review homework and quiz solutions after they are posted to bridge any gaps in learning. Seek help if and as needed.
- viii. Prepare well for exams. Solve all the problems on the exam. Do not provide random and irrelevant answers. Any additional inputs will be provided in the review session recordings. If you follow the above advise, you will do well.

XI. Academic Continuity

During any semester, there is a possibility the course may be disrupted, whether due to continued pandemic or hurricane season. If the university transition to remote instruction, classes will be held via live, synchronous sessions using Microsoft Teams and attendance will be required just like in regular classes. You will find the Teams sessions links on your USF Email calendar and Microsoft Teams calendar. All course material will be in our course on Canvas.

XII. Communication

I will communicate with you through Emails from Canvas Inbox. You must also communicate with the instructor and the teaching assistant through E-mails from Canvas Inbox. You will find information on tone and etiquette when communicating under "Course Policies: Technology and Media." I should be able to respond to your e-mails within a day or two at the max depending on weekday/weekends. It can be a bit longer if I am travelling and out of network reach. But I will do my best to respond to you as quickly as I can.

XIII. Grading Scale

Grading Scale (%)		
96.50 – 100%	A+	
91.50 – 96.49%	Α	
89.50 – 91.49%	A-	
86.50 - 89.49%	B+	
81.50 – 86.49%	В	
79.50 – 81.49%	B-	
76.50 – 79.49%	C+	
71.50 – 76.49%	С	
69.50 – 71.49%	C-	
66.5 – 69.49%	D+	
61.50 – 66.49%	D	
59.50 – 61.49%	D-	
0 – 59.49%	F	

It is mandatory that students must write all the three exams to be held in order to earn a final grade/passing grade in the course. Students who do not attempt all the three exams will be assigned an "F" grade.

Your score determines your grade. No individual requests for grade adjustments shall be entertained.

XIV. Grade Categories and Weights

Assessment	Weights (% of Final Grade)
Homework Assignments (Individual Task – on-line submission through Canvas)	25%
Quizzes (administered online using Google Chrome, Canvas, and Honorlock)	20%
Exam #1 (administered online using Google Chrome, Canvas, and Honorlock)	15%
Exam #2 (administered online using Google Chrome, Canvas, and Honorlock)	20%
Exam #3 (administered online using Google Chrome, Canvas, and Honorlock)	20%

XV. Additional Details on the Course Assignments and Grading Policies

COURSE PARTICIPATION:

Course participation on Canvas is mandatory on all weeks during the semester. It is mandatory that in-class section students must attend and actively participate (simply attending will not be enough) in class the entire class duration. There will be no allowances, and concessions on this requirement. The nature of the course is such, and there is also strong evidence that students who participate in the course every week, stay in class the entire time; end up learning the subject matter better and earn good grades. Students must not only attend but engage themselves in the course proceedings through active participation, and practice along in class all the problems that the professor demonstrates. Every in-class section student will be tracked for their attendance and class participation.

Since Quizzes and Homework assignments are all announced at the beginning of the semester along with their deadlines on Canvas; they are due by the deadline indicated irrespective of whether you attended the class or missed the class due to various reasons. There will be NO allowances, concessions, or make-up

work be given for missed HW Assignments and Quizzes that will be assigned zero points. Exams are due as indicated in the schedule. No make-up exams will be given for any one for any reason. Students don't need to do any extra work, all that they have to do is just complete the work assigned as indicated on time and every time.

HOMEWORK ASSIGNMENTS:

All homework assignments are individual tasks. Every week specific topic/s will be covered along with solved example problems. Homework will be assigned by 9 p.m. the day of class (Tuesday) that consists of a set of problems similar to the solved example problems discussed in class/on PPT files. You will have sufficient time as indicated on the detailed schedule to solve the problems and to create a Report in Excel. Submit your report as an Excel file on Canvas before the due date and time indicated. Microsoft Excel MUST BE USED and for solving HW problems. If Excel is not used (along with Excel functions and Excel Data Analysis Toolpak options), zero points will be recorded for the HW assignment.

The strict deadline for HW submission will be 11:59 p.m. US Eastern the following Monday as indicated on Canvas. For your convenience, they are also listed in the Detailed Course Schedule at the end of this document. There will be no extension of due dates. No late submissions will ever be allowed. Be prepared to lose HW points if the Report is not turned-in before the deadline. No e-mail submissions or hard-copy submissions are accepted. All HW scores shall count towards final grade. Homework Reports will be graded for Relevancy and Completeness but not for Accuracy. As long as the submissions are on time, relevant, complete, and all the problems are solved; you get full points. Irrelevant solutions will earn you zero points. You will get partial credit for partial/incomplete solutions and submissions. HW report must demonstrate student's own work. If any HW reports are found to be copied, all the students who helped and/or received help shall be treated as violators, will receive zero points, and be reported for academic dishonesty. Solutions for HW assignments will be made available within a couple of days past the deadline. It is your responsibility to compare solutions provided with your answers and learn from the same in preparation for exams. If you have any questions or need help, you MUST seek help from the instructor or student tutor as needed for your own benefit. Please remember that solving Homework Assignments on your own is the most important step in preparing for exams. Colluding with classmates and other students/people, using external resources, tutors, hiring tutors to finish the assignments, using tutoring websites such as Chegg.com ... etc., and all other modes of cheating is strictly prohibited. Submitting work of tutors' and classmates' (as your own), and reports from tutoring websites such as Chegg.com ... etc., and all other modes of cheating is strictly prohibited. Violators will receive zero points and be reported for academic dishonesty. Academic dishonesty will be dealt with very strictly under university policies. If you do not use Excel, Excel functions, formulas, and do not generate Excel reports; and do not submit Excel file as your HW report; your HW report will not be graded and zero points will be recorded as your grade. There will be no exceptions to this requirement.

READING ASSIGNMENTS AND QUIZZES:

Reading Assignments are mandatory. Complete course material word document chapter readings and practice them in Excel before the deadlines indicated prior to attending class. As you read the chapters, workout the solved example problems in Excel. If you are not doing what is required to be done before attending classes, you are not doing what is essential for succeeding in this course. All Quizzes are individual tasks, typically multiple choice and/or fill-in the blank type. Quizzes are open book and open notes type and will test student understanding for the subject matter and not rote memorization nor the student ability to search out for answers because they will be of open book-open note type. You need to really learn the material and understand the subject to do well on quizzes. There will be Ten Quizzes in all as indicated in the detailed schedule. Every week specific topic/s will be covered in class. Once a chapter is completed, an on-line quiz will be assigned on Canvas using Honorlock. Each quiz consists of a set of "multiple choice or Fill in the Blank" questions. You will have sufficient time to complete the Quizzes held on

Canvas- Honorlock. Quiz will be assigned usually by 9 p.m. on Tuesday. The strict deadline for Quiz submission will be 11:59 p.m. US Eastern on Monday the following week as indicated on Canvas. It always helps and perhaps your performance will be better if the quiz is attempted after completing the homework. Each quiz will be timed and must be completed within allotted time before the deadline indicated. All quiz scores shall count towards final grade. A missed quiz will result in a score of zero. Solutions for the quizzes will be made available within a couple of days past the deadline. Academic dishonesty will be dealt with very strictly under university policies. Quizzes are administered online in Canvas using Honorlock based on USF system policies. Honorlock violations will be reported for academic dishonesty. Colluding with classmates and other students/people, using external resources, tutors, tutoring websites such as Chegg.com ... etc., and all other modes of cheating is strictly prohibited. Violators will receive zero points and be reported for academic dishonesty. Academic dishonesty will be dealt with very strictly under university policies.

EXAMS:

Exams are individual tasks. There will be three exams and all of them are held on Canvas- Honorlock and must be completed within the time window indicated. Students cannot miss an Exam. No make-up exams are given. You must make sure you complete the exam and submit your file on time or be prepared to lose points. Exams will be open textbook and open notes type. You are allowed to use laptops and perform calculations using Excel.

Microsoft Excel MUST BE USED and for solving Exam problems. If Excel is not used (along with Excel functions and Excel Data Analysis Toolpak options), zero points will be recorded for the Exams. While there will be certainly number crunching involved, it will not be a major focus, and it will be minimized as much as possible. Exams will test the student understanding for the application of the methods and interpretation of results. Problems on exams will be like the HW problems. You would not need statistical packages for the exams. Exams will be graded for Accuracy. All exam scores shall count towards final grade. Exams are administered online in Canvas using Honorlock based on USF system policies. Honorlock violations will be reported for academic dishonesty. Colluding with classmates and other students/people, using external resources, tutors, tutoring websites such as Chegg.com ... etc., and all other modes of cheating is strictly prohibited. Violators will receive zero points and be reported for academic dishonesty. Academic dishonesty will be dealt with very strictly under university policies.

XVI. Instructor Feedback Policy & Grade Dissemination

Any feedback will be provided on Canvas. Grades will be posted on Canvas typically within a week or two past the deadline after resolving for any student issues.

All submissions happen on Canvas. Instructor will respond to email communication relevant to the subject matter within 48 hours of the date received. Students will know their Quiz score immediately after submission but not solutions key. For academic integrity reasons, Quiz solutions and HW solutions will be made available within 1-2 days after the deadline passes (after resolving any issues). Grades and comments (as appropriate) for Homework assignments and Exams will be posted on Canvas typically within 1-2 weeks past the respective due dates. If any delays happen beyond that time-frame due to unforeseen circumstances, students will be informed of the possibility of delays through e-mail. You can access your scores at any time using "Gradebook" in Canvas after they are posted.

XVII. Course Schedule. (* Note: This Schedule is subject to revision if and as needed)

In this course, Tuesday will be treated as the class meeting day, and Tuesday-thru-Monday will be treated as a week.

Week	<u>Date</u>	<u>Description</u>
1	1/10	Assignments to be completed before class:
	(Week of 1/10–1/16)	 Read "Chapter0, WhyStudyStatistics.docx" by Monday, 1/9
	1/10-1/10)	Review Textbook Chapter 1 by Monday, 1/9
		Read Textbook Appendix E & Appendix F by Monday, 1/9
		Topic: Syllabus, Course Outline, and Introduction to Statistics
		<u>Learning Objective</u> :
		 Understand Course Overview, Objectives, Structure, and Grading Policy
		Develop a basic overview on the importance of Statistics
		Learn the important role Statistics plays in Business Decision Making
		Assignment:
		HOMEWORK #0 (Self Introduction) – due before 11:59 p.m. Thursday, 1/12
		 Complete Not-for-Grade-First Week Quiz" by Monday, 1/16
		 Read and Practice in Excel "Chapter01DataAndDescriptiveStatistics.docx" & do a quick review of "Chapter02Probability.docx" by Monday, 1/16
		 Do a Quick Review of Textbook Chapters: 2, 3, and 4 by Monday, 1/16
2	1/13	Last day to drop course w/o financial responsibility – Friday, 1/13
2	1/17	Topic: Descriptive Statistics and Probability
	(Week of 1/17–1/23)	<u>Learning Objective</u> :
		 Understand population and sample, parameters, and statistics
		 Learn to calculate measures of central tendency and measures of dispersion
		 Learn to understand variables, statistical experiments, and random variables
		Learn the basic concepts and importance of Probability
		Assignment:
		• HOMEWORK #1 – Report is due before 11:59 p.m. Monday, 1/23
		 QUIZ #1 (Honorlock) (on Descriptive Statistics) – is due before 11:59 p.m. Monday, 1/23
		 Read & Practice in Excel discrete probability distributions portion of "Chapter03ProbabilityDistributions.docx" by Monday, 1/23

<u>Week</u>	<u>Date</u>	<u>Description</u>
		Review Textbook Chapter 5 by Monday, 1/23
3	1/24	Topic: Discrete Probability Distributions Learning Objective:
	(Week of 1/24–1/30)	 Understand the concept of a random variable and a probability distribution
		 Learn various discrete probability distributions, learn when to apply a particular distribution, and calculate probabilities
		Assignment:
		 HOMEWORK #2 – Report is due before 11:59 p.m. Monday, 1/30
		 QUIZ #2 (Honorlock) (on Discrete Probability Distributions) – is due before 11:59 p.m. Monday, 1/30
		 Read & Practice in Excel continuous probability distributions portion of "Chapter03ProbabilityDistributions.docx" by Monday, 1/30 Review Textbook Chapter 6 by Monday, 1/30
4	1/31	Topic: Continuous Probability Distributions
	(Week of	<u>Learning Objective</u> :
	1/31–2/6)	 Learn various continuous probability distributions, learn when to apply a particular distribution, and calculate probabilities
		Assignment:
		 HOMEWORK #3 – Report is due before 11:59 p.m. Monday, 2/6
		 QUIZ #3 (Honorlock) (on Continuous Probability Distributions) – is due before 11:59 p.m. Monday, 2/6
		 Read & Practice in Excel "Chapter04ConfidenceIntervals.docx" by Monday, 2/6
		Review Textbook Chapter 7 and 8 by Monday, 2/6
5	2/7 (Week of	Topic: Estimation (Sampling Distributions, Point Estimation, and Interval Estimation) <u>Learning Objective</u> :
	2/7–2/13)	 Understand the importance of Central Limit Theorem in Statistical Inference
		 Develop point estimates for a population parameter given the sample dataset from various business decision contexts
		 Develop interval estimates for a population parameter given the sample dataset from various business decision contexts
		Learn to interpret confidence interval estimates
		Assignment:
		HOMEWORK #4 – Report is due before 11:59 p.m. Monday, 2/13
		 QUIZ #4 (Honorlock) (on Estimation) – is due before 11:59 p.m. Monday, 2/13
6	2/14	Scheduled Event: Review & Preparation for Exam #1. No new/additional course

<u>Week</u>	<u>Date</u>	<u>Description</u>
	(Week of	content will be covered this week.
	2/14–2/20)	Exam #1 (Honorlock) – (on Discrete Probability Distributions, Continuous Probability Distributions, and Estimation) will open on Saturday, 2/18 and will close at 11:59 p.m. Monday, 2/20
		Assignment:
		 Read & Practice in Excel "Chapter05HypothesisTesting.docx" by Monday, 2/20
		 Review Textbook Chapter 9 by Monday, 2/20
7	2/21	Topic: Statistical Inference and Hypothesis Testing Learning Objective:
	(Week of 2/21–2/27)	Understand and appreciate the importance of Hypothesis testing in Business Decision making
		 Develop hypothesis from a problem statement
		 Learn to choose an appropriate statistical technique to apply given the problem context,
		 Learn to conduct hypothesis test, and most importantly, interpret the reports/results, and develop conclusions.
		Assignment:
		 HOMEWORK #5 – Report is due before 11:59 p.m. Monday, 2/27
		 QUIZ #5 on Honorlock (on Hypothesis Testing) – is due before 11:59 p.m. Monday, 2/27
		 Read & Practice in Excel "Chapter07CategoricalVariables.docx" by Monday, 2/27
		 Review Textbook Chapter 12 by Monday, 2/27
8	2/28	Topic: Chi-Square Tests of Independence and Goodness of Fit
	(Week of	Learning Objective:
	2/28–3/6)	Learn to develop Hypothesis Statements and perform hypotheses tests on categorical data using Chi-Square tests
		 Learn to conduct Goodness of Fit tests and interpret results
		 Learn to conduct Contingency Table test and interpret results <u>Assignment</u>:
		 HOMEWORK #6 (Ch.12) – Report is due before 11:59 p.m. Monday, 3/6
		 QUIZ #6 on Honorlock (on Chi-Square Testing) – is due before 11:59 p.m. Monday, 3/6
		Read & Practice in Excel "Chapter06ANOVA.docx" by Monday, 3/6 Review Toythook Chapter 13 by Monday, 3/6
9	2/7	Review Textbook Chapter 13 by Monday, 3/6 Takin Francisco Lab Review and Associated States (ANOVA)
	3/7	Topic: Experimental Design and Analysis of Variance (ANOVA)
	(Week of	

Week	<u>Date</u>	<u>Description</u>	
	3/7–3/13)	Learning Objective:	
		 Identify an appropriate design to perform Analysis of Variance (ANOVA) given the problem statement, and learn to develop hypothesis statements 	
		 Appreciate the role of and learn to perform the Completely Randomized Design, Randomized Block Design, and Factorial Design based analysis using Excel; and conduct Fisher's Least Significance Difference test 	
		 Understand and interpret ANOVA output; develop conclusions for the decision maker 	
		Assignment:	
		 HOMEWORK #7 (on ANOVA) – Report is due before 11:59 p.m. Monday, 3/13 	
		• QUIZ #7 (Honorlock) (on ANOVA) – is Due before: 11:59 p.m. Monday, 3/13	
	3/7	Midterm Grade is posted by 11:59 p.m. Tuesday, 3/7	
10	3/13-3/19	Spring Break Week – No Classes	
10	3/21 (Week of	Scheduled Event: Review & Preparation for Exam #2. No new/additional course content will be covered this week.	
	3/21–3/27)	Exam #2 (Honorlock) – (on Hypothesis Testing, Chi-Square Testing, and Analysis of Variance) will open on Saturday, 3/25 and will close at 11:59 p.m. Monday, 3/27	
		Assignment: Read & Practice in Excel "Chapter08SimpleRegression.docx" by Monday, 3/27 Review Textbook Chapter 14 by Monday, 3/27	
	3/25	Fall Last day to withdraw; no refund & no academic penalty – Saturday, 3/25	
11	3/28	Topic: Simple Linear Regression	
	(Week of 3/28–4/3)	<u>Learning Objective</u> :	
		Develop appreciation for the importance of Regression and Correlation	
		Develop simple linear regression model for given data	
		Test hypotheses about relationships between variables	
		 Understand and interpret the regression output from Excel and statistical software package like Minitab 	
		 Extract useful information from regression report for business decision making 	
		Assignment:	
		 HOMEWORK #8 (on Simple Linear Regression) – Report is due before 11:59 p.m. Monday, 4/3 	
		 QUIZ #8 (Honorlock) (on Simple Linear Regression) – is Due before: 11:59 p.m. Monday, 4/3 	

<u>Week</u>	<u>Date</u>	<u>Description</u>
		 Read & Practice in Excel "Chapter09MultipleRegression.docx" by Monday, 4/3
		Review Textbook Chapter 15 by Monday, 4/3
12	4/4	Topic: Chapter 15 – Multiple Regression
	(Week of	<u>Learning Objective</u> :
	4/4–4/10)	Develop multiple regression model for given data
		Test hypotheses about relationships between variables
		 Understand and interpret the regression output from Excel and statistical software package like Minitab
		 Extract useful information from regression report for business decision making
		Learn how to deal with categorical independent variables in regression
		Assignment:
		 HOMEWORK #9 (on Multiple Regression) – Report is due before 11:59 p.m. Monday, 4/10
		 QUIZ #9 (Honorlock) (on Multiple Regression) – is Due before: 11:59 p.m. Monday, 4/10
		Review Textbook Chapter 17 by Monday, 4/10
13	4/11	Topic: Time Series Analysis and Forecasting
	(Week of 4/11–4/17)	<u>Learning Objective</u> :
		Develop an understanding for patterns in Time Series data
		 Learn to select an appropriate forecasting technique based on time series pattern
		 Learn to develop forecasts using techniques like Naïve, Moving Averages, Exponential Smoothing, and Regression methods
		 Understand the role of Forecast Accuracy Measures, and to select a best method for forecasting for a given problem
		Assignment:
		 HOMEWORK #10 (on Time Series Analysis and Forecasting) – Report is due before 11:59 p.m. Monday, 4/17
		 QUIZ #10 (Honorlock) (on Time Series Analysis and Forecasting) – is Due before: 11:59 p.m. Monday, 4/17
14	4/18	Topic: Regression Analysis - Case Study Problems
	(Week of 4/18–4/24)	Assignment:
		 HOMEWORK #11 (Case Study Problems) – Report is due before 11:59 p.m. Monday, 4/24
	4/22–4/28	Test Free Week – Final Exam cannot be administered

Week	<u>Date</u>	<u>Description</u>
15	4/25 (Week of 4/25–5/1)	Scheduled Event: Review & Preparation for Exam #3. No new/additional course content will be covered this week. Exam #3 (Honorlock) – (on Simple Linear Regression, Multiple Regression, and Forecasting) will open on Saturday, 4/29 and will close at 11:59 p.m. Monday, 5/1
	5/9-5/10	Final Grade is reported to USF by 11:59 p.m. Tuesday, 5/9 and will be posted on Canvas Grade Book by the end of the day on Wednesday (5/10)
	5/12	Course Final Grade will be visible in OASIS

* Notes:

- The Schedule is subject to revision if and as needed during the semester
- All the dates and assignments are tentative and can be changed at the discretion of the professor.

XVIII. USF Core Syllabus Policies

USF has a set of central policies related to student recording class sessions, academic integrity and grievances, student accessibility services, academic disruption, religious observances, academic continuity, food insecurity, and sexual harassment that **apply to all courses at USF**. Be sure to review these online: usf.edu/provost/faculty-success/resources-policies-forms/core-syllabus-policy-statements.aspx

XIX. Course Policies: Grades

Online Proctoring: Online exams and quizzes within this course will require online proctoring. Quizzes and examinations will be administered using online proctoring tool - Honorlock. Keeping the audio and video (microphone and camera) on during such exams and quizzes is a must. Therefore, students will be required to have a webcam (USB or internal) with a microphone when taking an exam or quiz. Students understand that this remote recording device is purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence. To avoid any concerns in this regard, students should select private spaces for the testing. The University library and other academic sites at the University offer secure private settings for recordings, and students with concerns may discuss the location of an appropriate space for the recordings with their instructor or advisor. Students must ensure that any recordings do not invade any third-party privacy rights and accept all responsibility and liability for violations of any third-party privacy concerns. Setup information will be provided prior to taking the proctored exam. For additional information about online proctoring, you can visit the online proctoring student FAQ at: https://www.usf.edu/innovative-education/resources/student-services/online-proctoring.aspx

Late Work Policy: No late work will be allowed in this course be it for HW assignments, Quizzes, or Exams. Student acquisition of knowledge in this course happens cumulatively. The nature of the course is such that student learning of topics must happen on a weekly basis as scheduled. Otherwise, it will affect learning the subsequent weeks. All the due dates for the tasks in this course are announced on day 1. It is the responsibility of students to submit their work well ahead of time and to meet all the deadlines. If proper, correct, and valid submissions do not happen before the respective deadlines; zero points will be recorded for the task. The only exception to this policy will be documented medical emergencies (if any) for the student needing medical attention with proper medical / hospitalization certificate. As all the dates have been announced at the beginning of the semester, being on office trip, or on vacation, or on cruise, or forgetfulness, or being late by a second will not qualify for any exceptions or concessions as far as the assignment submissions go. Assignments not submitted on time mean assignment was not turned in and will earn a zero credit.

Extra Credit Policy: There will be No Extra Credit in this course. There is no need to do any extra work in this course. Just do what you have been assigned on-time without-missing the deadlines to become eligible for the grade. Every task (HW assignments, Quizzes, and Exams) assigned in this course shall count towards your grade. If you fail to meet the deadline, zero points will be assigned for that task. No exceptions. Any exception will be made ONLY for medical emergencies / hospitalizations of the student with proper official documentation from the doctor/hospital.

Grades of "Incomplete": Students cannot demand an "I" grade as they wish. If any student is not earning good grades, that cannot become a basis for asking for an "I" Grade. In such cases "I" grade cannot be awarded. It can be requested only under exceptional circumstances for valid reasons and a decision will be made based on USF policy.

The current university policy concerning incomplete grades will be followed in this course.

For undergraduate courses: An "I" grade may be awarded to a student only when a small portion of the student's work is incomplete and only when the student is otherwise earning a passing grade. The time limit for removing the "I" is to be set by the instructor of the course. For undergraduate students, this time limit may not exceed two academic semesters, whether or not the student is in residence, and/or graduation,

whichever comes first. For graduate students, this time limit may not exceed one academic semester. "I" grades not removed by the end of the time limit will be changed to "IF" or "IU," whichever is appropriate.

For graduate courses: An Incomplete grade ("I") is exceptional and granted at the instructor's discretion only when students are unable to complete course requirements due to illness or other circumstances beyond their control. The course instructor and student must complete and sign the "I" Grade Contract Form that describes the work to be completed, the date it is due, and the grade the student would earn factoring in a zero for all incomplete assignments. The due date can be negotiated and extended by student/instructor as long as it does not exceed two semesters for undergraduate courses and one semester for graduate courses from the original date grades were due for that course. An "I" grade not cleared within the two semesters for undergraduate courses (including summer semester) will revert to the grade noted on the contract.

Rewrite Policy: There will be no rewrites in this course. All quizzes and exams can be attempted only once. Students can submit their HW reports multiple times, but all the submissions must happen only before the set deadline (and not after).

Make-up Exams Policy: There will be No Make-up Exams in this course. Exams can be attempted only once. Time windows for the Exams are announced on Day 1. It is the student responsibility to adjust their schedules to give their exams during the exam time window. No change of dates will be entertained unless there is absolutely an exceptional circumstance at student's end and for documented medical emergencies and only if student has notified the instructor in advance and certainly not after the deadline passes. As all the dates have been announced at the beginning of the semester, being on office trip, or on vacation, or on cruise, or forgetfulness, or being late will not qualify for any exceptions or concessions. If Exams are not submitted on time, zero points will be recorded.

Exam Retention Policy: Not applicable for this course as all the Exams are **Honorlock** -based. Student submission happen on Canvas so there will be an electronic record. So, whatever USF policy is for Canvas course retention that applies for the course.

Essay Commentary Policy: Not applicable.

Group Work Policy: All the tasks in the course – HW assignments, Quizzes, and Exams are individual tasks. There is no group work allowed in this course. If there is any group work in the group work, that would be plagiarism. In such instances, action will be taken on students based on USF policy on academic integrity violation.

Final Examinations Policy: All final exams are to be scheduled in accordance with the University's final examination policy.

Campus Free Expression: It is fundamental to the University of South Florida's mission to support an environment where divergent ideas, theories, and philosophies can be openly exchanged and critically evaluated. Consistent with these principles, this course may involve discussion of ideas that you find uncomfortable, disagreeable, or even offensive.

In the instructional setting, ideas are intended to be presented in an objective manner and not as an endorsement of what you should personally believe. Objective means that the idea(s) presented can be tested by critical peer review and rigorous debate, and that the idea(s) is supported by credible research.

Not all ideas can be supported by objective methods or criteria. Regardless, you may decide that certain ideas are worthy of your personal belief. In this course, however, you may be asked to engage with complex ideas and

to demonstrate an understanding of the ideas. Understanding an idea does not mean that you are required to believe it or agree with it.

XX. Course Policies: Technology and Media

Email: I am Dr. Ramakrishna Govindu, and I will be your instructor for this course. My e-mail address is: RGovindu@usf.edu. If you are e-mailing me, as a courtesy, please commence your email with a greeting such as "Dear Dr. Govindu," "Hello Dr. Govindu," or "Dr. Govindu." Please write the appropriate subject and please write your name at the bottom of the email.

How to communicate with me

Given the ongoing pandemic situation, the best way to reach me is through e-mail that will be quicker. Leaving voice message on my office phone would not be good during these pandemic times. Response times can be longer that way. Sending an e-mail would be the best given the current situation. Should you need help with the course, we can set up time to discuss remotely at mutual convenience. Meanwhile, you can email me with the questions, and I may be able to clarify your questions through an e-mail. If at all needed, we can set up an appointment at mutual convenience for a tele-conversation and if possible and required a Microsoft Teams meeting.

How NOT to communicate with me

- Please don't post questions in the comments section of Canvas homework submissions. I will not read your comments until I sit down to grade your assignment.
- Please don't email me from a non-USF email account.
- Please don't submit deliverables to me through e-mail. It will be treated as a non-submission.
- Please don't reply to an email that I send to the entire class without changing the subject unless your question is about that subject. If you are using the "Reply" button as a means to get my email address in the "To" line, please change the subject line and delete all previous text from that email, if your email pertains to something else. In which case it is better to not use the "reply" button and just start a fresh email.

How will I communicate with you?

I will use the Canvas messaging utility to send you all emails pertaining to the course. So, you must check your USF mail account (and/or your e-mail where you receive USF e-mails by default). Whenever a student asks a question and I reply directly to that student. If and where the student question and my reply are very important for the rest of the class to know, I will send out a mass e-mail, hiding the student identity. Students over the years found such inputs quite beneficial for them.

When students send me e-mails, I get them in my USF e-mail Inbox, and I will reply through my USF e-mail. If I am sending e-mails, I will use Canvas messaging feature to send e-mails. You should also do the same. I deal with almost hundred students and sometimes even more and I receive hundreds of e-mails. When you send e-mails through Canvas, I will instantly know who you are, in which course of mine you are in, I will understand the context for the question, and what is it that you are asking and why. That will help me to respond quickly. Otherwise, it could take a little longer. I respond very quickly – sometimes within minutes, sometimes within a few hours, sometimes within a day or so depending on the nature and importance of communication, circumstances, and the situation at my end. I respond on weekends too. But expect the response times to be little longer if it is weekends and if I am travelling. But be assured I will respond, and I will respond to student e-mails very quickly as I am able to.

Do not send me e-mails on technological issues at your end. If the issues at your end are technology related you must reach out to USF IT Helpdesk, Canvas Helpdesk, and/or **Honorlock** Helpdesk depending on the issue, and they will help you immediately. I won't be able to resolve your technology issues.

Canvas: Describe how you will use Canvas in the course, how often students should expect to login, how team activities will be organized, due dates, policies on late participation, etc.

Example: This course will be offered via USF's learning management system (LMS), Canvas. If you need help learning how to perform various tasks related to this course or other courses being offered in Canvas, please view Canvas videos, or consult the Canvas help guides. If new to Canvas, read this guide. You may also contact USF's IT department at (813) 974-1222 or help@usf.edu.

Honorlock: In this course, we use Canvas- **Honorlock** for all Quizzes and Exams. Students are therefore required to have a webcam with a microphone (either USB or mounted into your computer).

All students must review the syllabus and the requirements, including the online terms and video testing requirements, to determine if they wish to remain in the course. Enrollment in the course is an agreement to abide by and accept all terms. Any student may elect to drop or withdraw from this course before the end of the drop/add period.

Online exams and quizzes within this course may require online proctoring. Therefore, students will be required to have a webcam (USB or internal) with a microphone when taking an exam or quiz. Students understand that this remote recording device is purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence.

To avoid any concerns in this regard, students should select private spaces for the testing. The University library and other academic sites at the University offer secure private settings for recordings and students with concerns may discuss location of an appropriate space for the recordings with their instructor or advisor.

Students must ensure that any recordings do not invade any third-party privacy rights and accept all responsibility and liability for violations of any third-party privacy concerns.

Students are strictly responsible for ensuring that they take all exams using a reliable computer and high-speed internet connection. Setup information will be provided prior to taking the proctored exam. To use Honorlock students are required to download and install the Honorlock Google Chrome extension (Links to an external site.) and Honorlock student resources (Links to an external site.).

Students need to have access to a computer with the Chrome browser and can download the Honorlock extension. Your system also needs webcam, and you need to present your ID (any Photo ID would be enough you can simply use your USF ID) for verification to get into Honorlock Quizzes and Exams.

Specific information / instructions will be provided on all Honorlock Quizzes and Honorlock Exams. For additional information about online proctoring, you can visit the online proctoring student FAQ.

WhatsApp, GroupMe, and Student-to-Student Communication: While students may use digital communication tools (WhatsApp, GroupMe, etc.) to communicate with fellow students, it is important to remember that academic integrity policies still apply in these environments. Informing others about the contents of tests is prohibited by the official regulation, as is receiving unauthorized information about an examination. Students are expected and required to immediately report instances of such violations to the instructor.

Laptop Usage: You would need a proper laptop with microphone and webcam (either built in or external) for use in this course. Describe your policies for using laptops throughout your course. Whether you dislike the use of laptops during your lecture, or whether you encourage using a laptop during discussion, or wish for all students using laptops to sit in a particular region of the classroom, feel free to state it here.

Classroom Devices/Student Recording: Not applicable. Describe your policies for using calculators, tape recorders, and other student-owned audio & technology devices for your course.

Phone Usage: Describe your policies for student phone use in class, including texting or surfing the Internet. If you are using social media for a "backchannel" conversation, mention it here. If you would prefer that students not take photos/video/audio recordings of you, or of the whiteboard notes at the end of the class, state so here.

XXI. Course Policies: Student Expectations

Attendance Policy: In a 100% online, Course Participation serves as attendance Policy. Please refer to section XII for the details on Course Participation.

Example: Students are expected to attend classes. Faculty must inform students of attendance requirements on syllabi. Instructors should accommodate excused absences by making arrangements with students ahead of time (when possible) or by providing a reasonable amount of time to make up missed work.

Course Hero / Chegg Policy:

The <u>USF Policy on Academic Integrity</u> specifies that students may not use websites that enable cheating, such as by uploading or downloading material for this purpose. This does apply specifically to Chegg.com and CourseHero.com – any use of these websites (including uploading proprietary materials) constitutes a violation of the academic integrity policy.

Professionalism Policy: Complete your work and submit reports on time every time well before the respective deadlines on assignments.

Per university policy and classroom etiquette, mobile phones, iPods, etc. **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, etc., and have been warned may suffer a reduction in their final class grade.

End of Semester Student Evaluations:

All classes at USF make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued.

Food and Drink Policy: Not Applicable.

Example: Please adhere to the firm policy of no beverages (other than bottled/capped water), food, tobacco products, or like items in the classroom. Your understanding of the necessity for this policy and cooperation will be greatly appreciated. This policy will be strictly enforced.

Turnitin.com: In this course Turnitin service will be utilized for all the assignments to prevent plagiarism. The University of South Florida has an account with an automated plagiarism detection service which allows student assignments to be checked for plagiarism. Turnitin is an automated system which instructors may use to quickly and easily compare each student's assignment with billions of web sites, as well as an enormous database of student papers that grows with each submission. Accordingly, you will be expected to submit all assignments in both hard copy and electronic format. After the assignment is processed, as instructor I receive a report from turnitin.com that states if and how another author's work was used in the assignment. For a more detailed look at this process visit http://www.turnitin.com.

Pursuant to the provisions of the Family Educational Rights and Privacy Act (FERPA), students are requested to maintain confidentiality as a way to keep their personal contact information (i.e., name, address, telephone)

from being disclosed to vendors or other outside agencies. By your submission, you are also agreeing to release your original work for review for academic purposes to Turnitin.

In order to comply with privacy laws, students are not required to include personal identifying information, such as name, in the body of the document. While submitting to Turnitin, PLEASE REMOVE YOUR NAME FROM THE BODY OF YOUR PAPER AND REPLACE IT WITH YOUR USF ID#. ALSO REMOVE YOUR NAME FROM THE FILE NAME AND REPLACE IT WITH YOUR USF ID# (e.g., "U12345678 Essay 1.docx") before submitting.

Plagiarism:

Definition of *plagiarism* in USF Regulation 3.027.

<u>Plagiarism</u> is intentionally or carelessly presenting the work of another as one's own. It includes submitting an assignment purporting to be the student's original work which has wholly or in part been created by another person. It also includes the presentation of the work, ideas, representations, or words of another person without customary and proper acknowledgement of sources. Students must consult with their instructors for clarification in any situation in which the need for documentation is an issue and will have plagiarized in any situation in which their work is not properly documented.

- a) Every direct quotation must be identified by quotation marks or appropriate indentation and must be properly acknowledged by parenthetical citation in the text or in a footnote or endnote.
- b) When material from another source is paraphrased or summarized in whole or in part in one's own words, that source must be acknowledged in a footnote or endnote, or by parenthetical citation in the text.
- c) Information gained in reading or research that is not common professional knowledge must be acknowledged in a parenthetical citation in the text or in a footnote or endnote.
- d) This prohibition includes, but is not limited to, the use of papers, reports, projects, and other such materials prepared by someone else.

Netiquette Guidelines

- 1. Act professionally in the way you communicate. Treat your instructors and peers with respect, the same way you would do in a face-to-face environment. Respect other people's ideas and be constructive when explaining your views about points you may not agree with.
- 2. Be sensitive. Be respectful and sensitive when sharing your ideas and opinions. There will be people in your class with different linguistic backgrounds, political and religious beliefs, or other general differences.
- 3. Proofread and check spelling. Doing this before sending an email or posting a thread on a discussion board will allow you to make sure your message is clear and thoughtful. Avoid the use of all capital letters, it can be perceived as if you are shouting, and it is more difficult to read.
- 4. Keep your communications focused and stay on topic. Complete your ideas before changing the subject. By keeping the message on focus you allow the readers to easily get your idea or answers they are looking for.
- 5. Be clear with your message. Avoid using humor or sarcasm. Since people can't see your expressions or hear your tone of voice, meaning can be misinterpreted.

XXII. Learning Support and Campus Offices

Academic Accommodations

Students with disabilities are responsible for registering with Student Accessibility Services (SAS) in order to receive academic accommodations. For additional information about academic accommodations and resources, you can visit the SAS website.

SAS website for the Tampa and Sarasota-Manatee campuses. SAS website for the St. Pete campus.

Academic Support Services

The USF Office of Student Success coordinates and promotes university-wide efforts to enhance undergraduate and graduate student success. For a comprehensive list of academic support services available to all USF students, please visit the Office of Student Success website.

Canvas Technical Support

Include information where students can find technical support.

If you have technical difficulties in Canvas, you can find access to the Canvas guides and video resources in the "Canvas Help" page on the homepage of your Canvas course. You can also contact the help desk by calling 813-974-1222 in Tampa or emailing help@usf.edu.

IT website for the Tampa campus.

IT website for the St. Pete campus.

IT website for the Sarasota-Manatee campus.

Center for Victim Advocacy

The <u>Center for Victim Advocacy</u> empowers survivors of crime, violence, or abuse by promoting the restoration of decision making, by advocating for their rights, and by offering support and resources. Contact information is available online.

Counseling Center

The Counseling Center promotes the wellbeing of the campus community by providing culturally sensitive counseling, consultation, prevention, and training that enhances student academic and personal success. Contact information is available online.

Counseling Center website for the Tampa campus.

Counseling Center website for the St. Pete campus.

Counseling Center website for the Sarasota-Manatee campus.

Tutoring

The Tutoring Hub offers free tutoring in several subjects to USF undergraduates. Appointments are recommended, but not required. For more information, email asctampa@usf.edu.

Tutoring website for the Tampa campus.

Tutoring website for the St. Pete campus.

Tutoring website for the Sarasota-Manatee campus.

Writing Studio

Example: The Writing Studio is a free resource for USF undergraduate and graduate students. At the Writing Studio, a trained writing consultant will work individually with you, at any point in the writing process from brainstorming to editing. Appointments are

recommended, but not required. For more information or to make an appointment, email:

writingstudio@usf.edu.

Writing studio website for the Tampa campus.

Writing studio website for the St. Pete campus.

Writing studio website for the Sarasota-Manatee campus.

XXIII. Important Dates to Remember

For important USF dates, see the Academic Calendar at http://www.usf.edu/registrar/calendars/

Example:

Drop/Add Deadline: Fri, Jan 13, 2023
Dr. Martin Luther King Day Jr. Holiday: Mon, Jan 16, 2023
Mid-term Grading Opens: Mon, Feb 20, 2023
Mid-term Grading Closes: Tues, Mar 7, 2023

Spring Break Week: Mon, Mar 13 – Sun, Mar 19, 2023

Withdrawal Deadline: Sat, Mar 25, 2023

Test Free Week: Sat, Apr 22 - Fri, Apr 28, 2023
Final Examination Week: Sat, Apr 29 - Thurs, May 4, 2023