Instructor: Dr. Anurag Agarwal  
E-Mail: agarwala@usf.edu  
Class Time: Saturday, 9:00 to 12:30 p.m.

Office: SMC-C217  
Office Telephone: 941-359-4522  
Office Hours: By appointment

PREREQUISITES: None

COURSE DESCRIPTION: This course involves the theory and application of descriptive and inferential statistical methods in the business decision making environment. The use of computerized applications of statistical techniques is emphasized in the production of graphical data analyses, interval estimation, hypothesis testing and multiple regression.

COURSE TOPICS: This course will cover the following content areas:
1. Descriptive Statistics
2. Probability Theory
3. Probability Distributions
4. Sampling Distributions
5. Estimation (Point and Interval)
6. Hypothesis Testing
7. ANOVA
8. Categorical Data Analysis
9. Regression Analysis

COURSE OBJECTIVES: To understand the principles of Statistics and learn how to apply Statistics in Business Decision Making.

COURSE STUDENT LEARNING OUTCOMES: At the conclusion of the course the student should be able to:
1. Appreciate the value of statistics and various statistical tools in managerial decision making.
2. Distinguish between descriptive and inferential statistics.
3. Generate point and interval estimates of means and proportions of various populations.
4. Test various hypotheses regarding means and proportions of variables of interest and about relationships between variables of interest.
5. Design experiments and perform Analysis of Variance, understand and interpret the ANOVA output from various statistical software packages and test some common hypotheses related to Analysis of Variance.
6. Formulate both simple and multiple regression models for some given data, understand and interpret the regression output from some statistical software packages, test some common hypotheses about relationships between variables.
7. Be able to use Excel’s various statistical functions and Excel’s Data Analysis Pak and various statistical functions for both descriptive and inferential statistics.
TEXT AND MATERIALS: There is no required textbook for this course. Content will be posted on Canvas.

CANVAS USE: The class syllabus is posted in Canvas, an online course management system. In this class Canvas will be used for posting course content and conducting online quizzes and exams. [http://www.usfsm.edu/infocommons/students.php](http://www.usfsm.edu/infocommons/students.php)

COMPUTER LAPTOP USE: USFSM requires all students to have laptops that can be brought with them to class. You are expected to bring your laptop to class so you can follow in class hands-on examples. I expect you to have the Excel software installed on your laptops. I will be using the Data Analysis Pak Add-In for Excel. If you have a Mac, you will not be able to use the Data Analysis Add-In because Excel for Mac does not have that Add-In. You may rent a Windows PC from Information Commons or run your Mac as a Windows machine using Parallels or VMware similar software.

PLAGIARISM SOFTWARE: The University of South Florida has an account with an automated plagiarism detection service which allows student assignments be checked for plagiarism. I reserve the right to ask students to submit their assignments to Turnitin through Canvas. Assignments are compared automatically with a database of journal articles, web articles, and previously submitted papers. The instructor receives a report showing exactly how a student’s paper was plagiarized.

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 IT TO TURNITIN.

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.

GRADING, EVALUATION AND ATTENDANCE POLICIES:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (five quizzes)</td>
<td>50</td>
</tr>
<tr>
<td>Exams (two)</td>
<td>70</td>
</tr>
<tr>
<td>Assignments (seven)</td>
<td>70</td>
</tr>
<tr>
<td>Attitude, Behavior, Class participation</td>
<td>10</td>
</tr>
<tr>
<td>Total Course Points</td>
<td>200</td>
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</tbody>
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Grade cutoffs will be as follows:

- 97.0% for an A+, 93% for an A, 90.0% for an A-
- 87.0% for a B+, 83.0% for a B, 80.0% for a B-
- 77.0% for a C+, 73.0% for C, 70.0% for C-
- 67.0% for a D+, 63.0% for a D, 60.0% for a D-
- Below 60.0% results in an F grade

Note: At graduate level, a grade of C- is essentially a failing grade because you will be required to repeat the course if you earn a grade of C- or below.
Assignments submitted late will be penalized 20% of the grade for being up to 24 hours late and 50% of the grade for being 24 to 48 hours late. Beyond 48 hours, the assignment will not be graded for credit.

Quizzes and Exams will be conducted online. If submitted late, the penalty will be 20% for each minute late.

Although attendance will not be taken in class, you are expected to attend every class meeting. Makeup quizzes will be given only for documented medical emergencies.

Ten points are reserved for attitude, behavior and class participation. You are expected to attend all classes, be in class on time, pay attention to the class activities, show an attitude of learning, not disrupt class, show respect for others and in general exhibit a positive attitude.

**USFSM AND USF SYSTEM POLICIES**

**A. Academic Dishonesty:** The University considers any form of plagiarism or cheating on exams, projects, or papers to be unacceptable behavior. Please be sure to review the university’s policy in the catalog, [USFSM Undergraduate Catalog](#) or [USFSM Graduate Catalog](#), the USF System Academic Integrity of Students, and the [USF System Student Code of Conduct](#).

**B. Academic Disruption:** The University does not tolerate behavior that disrupts the learning process. The policy for addressing academic disruption is included with Academic Dishonesty in the catalog: [USFSM Undergraduate Catalog](#) or [USFSM Graduate Catalog](#), USF System Academic Integrity of Students, and the [USF System Student Code of Conduct](#).

**C. Contingency Plans:** In the event of an emergency, it may be necessary for USFSM to suspend normal operations. During this time, USFSM may opt to continue delivery of instruction through methods that include but are not limited to: Canvas, Elluminate, Skype, and email messaging and/or an alternate schedule. It’s the responsibility of the student to monitor Canvas site for each class for course specific communication, and the main USFSM and College websites, emails, and [MoBull](#) messages for important general information. The USF hotline at 1 (800) 992-4231 is updated with pre-recorded information during an emergency. See the [Safety Preparedness Website](#) for further information.

**D. Disabilities Accommodation:** Students are responsible for registering with the Office of Students with Disabilities Services (SDS) in order to receive academic accommodations. Reasonable notice must be given to the SDS office (typically 5 working days) for accommodations to be arranged. It is the responsibility of the student to provide each instructor with a copy of the official Memo of Accommodation. Contact Information: Disability Coordinator, 941-359-4714, disabilityservices@sar.usf.edu, [http://www.usfsm.edu/students/disability/](http://www.usfsm.edu/students/disability/)
E. **Fire Alarm Instructions:** At the beginning of each semester please note the emergency exit maps posted in each classroom. These signs are marked with the primary evacuation route (red) and secondary evacuation route (orange) in case the building needs to be evacuated. See [Emergency Evacuation Procedures](#).

F. **Religious Observances:** USFSM recognizes the right of students and faculty to observe major religious holidays. Students who anticipate the necessity of being absent from class for a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second week of classes. Instructors canceling class for a religious observance should have this stated in the syllabus with an appropriate alternative assignment.

G. **Sexual Misconduct/Sexual Harassment Reporting:** USFSM is committed to providing an environment free from sex discrimination, including sexual harassment and sexual violence ([USF System Policy 0-004](#)). The Counseling and Wellness Center is a confidential resource where you can talk about incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence. This confidential resource can help you without having to report your situation to either the Office of Student Rights and Responsibilities (OSSR) or the Office of Diversity, Inclusion, and Equal Opportunity (DIEO), unless you request that they make a report.

Please be aware that in compliance with Title IX and under the USF System Policy, educators **must** report incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence. If you disclose any of these situations in class, in papers, or to me personally, I am required to report it to OSSR or DIEO for investigation. The Deputy Coordinator for USFSM is Mary Beth Wallace, AVP for Student Enrollment, Engagement and Success, 941-359-4330 or marybeth@saar.usf.edu.

Campus Resources:
- Counseling Center and Wellness Center 941-487-4254
- Victim Advocate (24/7) 941-504-8599

List of off-campus resources:
- Hope of Manatee: 941-755-6805
- Safe Place & Rape Crisis Center (SPARCC) – Sarasota: 941-365-1976
- First Call for Help- Manatee: 941-708-6488
  - Sarasota & North Port 941-366-5025
- Manatee Glens: 941-782-4800

H. **Web Portal Information:** Every newly enrolled USF student receives an official USF e-mail account. Students receive official USF correspondence and Canvas course information via that address.
GENERAL INSTRUCTION FOR STUDENTS

How to communicate with me:
You can either (i) send me an email or (ii) call me or (iii) set up an appointment to see me in my office. When emailing, please write the appropriate subject and please write your name at the bottom of the email. As a courtesy, please commence your email with a greeting such as “Dear Dr. Agarwal” or “Dear Prof. Agarwal”.

How NOT to communicate with me
Please don’t email me from a non-USF email account.
Please don’t submit deliverables to me through email.
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 also 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 to send you all emails pertaining to the course. I will reply to your emails within 24 hours. Occasionally emails do tend to go to my Junk Mail folder so if you have not received my response within 24 hours, please either resend your email or call my office phone number and leave a message in case I am not in my office.
# Tentative Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Description</th>
<th>Assignments</th>
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</table>
| 1    | 1/10 | Introductions  
Chapter 1: Data and Descriptive Statistics | Assign-1  
(Chapter 1)  
due 1/15 |
| 2    | 1/17 | Chapter 2: Probability  
Chapter 3: Probability Distributions (Discrete and Continuous)  
**Quiz 1** on Chapter 1 (posted online on 1/17, closes on 1/20) | Assign-2  
(Chapters 2, 3)  
due 1/22 |
| 3    | 1/24 | Chapter 3: Probability Distributions (Normal, Binomial, Poisson and Exponential Distributions)  
Sampling Distributions.  
**Quiz 2** on Chapters 1 and 2 (posed online on 1/24, closes on 1/27) | Assign-3  
(Chapter 3)  
due 1/29 |
| 4    | 1/31 | Chapter 4: Confidence Intervals  
**Quiz-3** on Chapter 1 to 3 (posed online on 1/31, closes on 2/03) | Assign-4  
(Chapter 4)  
due 2/05 |
| 5    | 2/07 | Chapter 5: Hypothesis Testing  
**Exam 1** on Chapters 1 to 4 (posted online on 2/07, closes on 2/10) | Assign-5  
(Chapter 5)  
due 2/12 |
| 6    | 2/14 | Chapter 6: Analysis of Variance  
Chapter 7: Categorical Data Analysis  
**Quiz 4** on Chapters 1 to 5 (posted online on 2/14, closes on 2/17) | Assign-6  
(Chapters 6, 7)  
due 2/19 |
| 7    | 2/21 | Chapter 8: Regression Analysis  
**Quiz 5** on Chapters 1 to 7 (posted online on 2/21, closes on 2/24) | Assign-7  
(Chapter 8)  
due 2/26 |
| 8    | 2/28 | Review  
**Exam 2** (In class) |