Class room (Face-to-Face) BUSI 3311 – 110 Business Statistics (CRN: 10219)
Spring 2020 – 16 Week – Jan 13 – May 08, 2020
Warrior Hall (WH) 417, M/W 1:00 PM – 2:15 PM
Texas A&M University- Central Texas

COURSE DATES, MODALITY, AND LOCATION
This course runs from January 13, 2020 to May 08, 2020. This course meets face-to-face at Warrior Hall (WH 417) on Monday and Wednesday 1:00 PM to 2:15 PM with supplemental materials made available online through the A&M-Central Texas Canvas Learning Management System: [https://tamuct.instructure.com/](https://tamuct.instructure.com/). The course related activities such as practice problems and assessment activities such as homework assignments also known as chapter review, and exams conducted through Hawkes learning: [https://learn.hawkeslearning.com/Portal/User/Login?ReturnUrl=%2fPortal](https://learn.hawkeslearning.com/Portal/User/Login?ReturnUrl=%2fPortal)

INSTRUCTOR AND CONTACT INFORMATION
Instructor: Vinay Gonela
Office: Founders Hall 217
Phone: 254-519-5757
Email: vinay.gonela@tamuct.edu
Preferred email for course – Canvas “Inbox”

Office Hours:
There will be two kinds of office hour: (1) in-office, and (2) on-line. Both the office hours will be on Monday and Tuesday 9:00 AM – 12:00 PM. The in-office hours will be held in FH 318. On-line office hours will be held canvas chat, Microsoft skype, and/or phone. Students can use Canvas “chat” in the menu for the online office hours. I can also be available through Microsoft office 365 Skype. My skype ID: vinay.gonela@tamu.edu. Students can connect with me to discuss course related questions. In addition, students can send any questions related to the course to my Canvas “Inbox”. I will respond to the student's questions within 36 hours. Any other questions, students can contact me through TAMUCT email: vinay.gonela@tamuct.edu. If the student needs assistance beyond the stated office hours, student can send me an email through canvas inbox and we can decide a mutually agreed time for office hours. Any deviations in office hours due to meetings and conferences will be communicated to students through instructor announcements.

Student-instructor interaction:
As stated in office hours, I will be available to the students in several formats. Any interaction that require detailed discussions will be conducted through: (1) face-to-face meeting; (2) Canvas “chat” (Preferred), (3) Microsoft office 365 Skype (My Skype ID: vinay.gonela@tamu.edu), and (4) Phone. Students can chat with me during office hours or any other mutually agreed time. In order
to talk to me on phone, students are required to schedule an appointment through canvas “Inbox”. Students can also send me any questions related to the course to my Canvas “Inbox”. I will respond to the student's questions within 24 hours. Any other questions, students can contact me through A&M-CT email: vinay.gonela@tamuct.edu.

WARRIOR SHIELD
Emergency Warning System for Texas A&M University-Central Texas

Warrior Shield is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in Warrior Shield through their myCT email account.

Connect to Warrior Shield by 911Cellular [https://portal.publicsafetycloud.net/Account/Login] to change where you receive your alerts or to opt out. By staying enrolled in Warrior Shield, university officials can quickly pass on safety-related information, regardless of your location.

Course Overview and description:
Descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data; frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions will be the focus of this course. Additionally, students will be introduced to ANOVA, correlations, regression, Chi-Square analyses, and statistical process control. Prerequisite(s): MATH 1324 or higher.

Course Objective: The student will understand the foundations of statistics, by creating and interpreting basic statistical graphs and charts, calculating and interpreting measures of central tendency and variation, and basic probability, (Module 1), probability distributions (Module 2), and conducting and interpreting hypothesis tests (Module 3). Additionally the student will be able to apply the statistical foundations in beginning inferential statistics, which include comparing two populations or more populations, comparing two population proportions, comparing two variables or treatments for a single population, and relating two variables (Modules 3 and 4). Finally, the student will understand the concepts of statistical applications to process improvement by creating and interpreting control charts. The student will meet the course objective and the following student learning outcomes by using the statistical learning software, Hawkes Learning System, and by using Minitab statistical software. The purpose of HAWKES LEARNING is to provide each student with an online learning environment in which the student is able to learn, master, and apply knowledge while working within a mastery-based pedagogical approach (Hawkes Learning Systems, n.d.). A link to the HAWKES LEARNING student training video is available in the main menu, in the Canvas classroom. Each student will demonstrate mastery of each topic by achieving 80% on each assignment and each exam, as outlined in each module.

Module Goals

Module 1: Conduct and apply the statistical foundations (data, populations, samples, central tendency, measures of variation, and basic probability concepts), using statistical learning software, Minitab, Microsoft Excel, and calculators, achieving 80% on each homework assignment.
and each exam. The specific statistical foundations are found in SLOs 1 – 3 and may be found in sections 1.1 – 1.3, 2.1 – 2.6, 3.3 – 3.10, and 4.1 – 4.2a, 4.3, 4.8 of the text book and in the Hawkes Learning Software (Ch 1 – 4).

Module 2: Conduct and interpret statistical methods for discrete and continuous probability distributions, sampling distributions, and estimating means and proportions, using statistical learning software, Minitab, Microsoft Excel, and calculators, achieving 80% on each homework assignment and each exam. The specific distributions and estimations are found in SLO 4 and may be found in 6.1 – 6.6 and 7.2 – 7.3b, and 8.1 – 8.4 of the textbook and in the Hawkes Learning Software (Ch 6 – 8).

Module 3: Conduct and interpret statistical methods of hypothesis testing for comparing means, proportions, and treatments, using statistical learning software, Minitab, Microsoft Excel, and calculators, achieving 80% on each homework assignment and each exam. The specific hypothesis methods and comparisons may be found in SLOs 5 and 6 and may be found in 9.1 – 9.7, 10.1 – 10.7b, and 11.1 – 11.4 of the textbook and in the Hawkes Learning Software (Ch 9 – 11).

Module 4: Conduct and interpret statistical methods of hypothesis testing for comparing three or more means, or treatments (ANOVA). Conduct correlations of two variables or treatments, and relate two or more linear variables. Test the fit of multinomial probabilities and relate two categorical variables. Achieve 80% on each homework assignment and each exam, using statistical learning software, Minitab, Microsoft Excel, and calculators. The specific methods of testing and comparing three or more populations, correlating, relating continuous and categorical variables may be found in SLOs 7 – 9 and may be found in 12.2-12.4, 13.1 – 13.5, 13.8, 14, 15.2 – 15.3, and 17 of the text book and in the Hawkes Learning Software (Chs 12 – 15 & 17).

Student Learning Outcomes (SLOs)

1. Demonstrate proficiency in reporting data numerically and graphically by achieving 80% on associated assignments and exams (Chapters 1 – 3).
2. Demonstrate proficiency in identifying and analyzing the following types and levels of data using appropriate statistical methods by achieving 80% on associated assignments and exams (Chapters 1 – 2).
   a. Identify and analyze qualitative (nominal, ordinal) data using appropriate statistical methods.
   b. Identify and analyze quantitative (continuous, discrete, interval, ratio) data using appropriate statistical methods.
3. Demonstrate proficiency in calculating the following descriptive statistics by achieving 80% on associated assignments and exams (Chapter 4).
   a. Identify and calculate descriptive statistics based on measures of central tendency.
   b. Identify and calculate descriptive statistics based on measures of variation.
4. Demonstrate proficiency in analyzing discrete and continuous probability distributions by achieving 80% on associated assignments and exams (Chapters 4, 6 – 8, 15).
   a. Use the properties of probabilities to calculate probabilities by using the concepts of probability, in particular, complements, addition rules, mutual exclusivity, multiplication of dependent and independent probabilities, and conditional
probabilities.

b. Calculate probabilities within binomial and Poisson distributions, normal distributions, F-distributions, and chi-square distributions.

c. Calculate probabilities using the Empirical Formula and the Central Limit theorem.

5. Demonstrate understanding and proficiency in calculating confidence intervals, conducting hypothesis tests, and calculating p-values by achieving 80% on associated assignments and exams (Chapters 9 – 10).

a. Calculate confidence intervals when the population standard deviation is known/unknown and for proportions.

b. Conduct hypothesis testing when the population standard deviation is known/unknown and for proportions.

c. Calculate p-values for all hypothesis tests.

6. Demonstrate proficiency in calculating inferential statistics (one or two populations) by achieving 80% on associated assignments and exams (Chapter 11).

a. Compare means or proportions of two populations.

b. Compare means of two treatments within one population.

7. Demonstrate proficiency in calculating inferential statistics (three or more populations and relationships) by achieving 80% on associated assignments and exams (Chapters 12 – 14).

a. Compare means of three or more populations using analysis of variance (ANOVA).

b. Correlate two variables or treatments using Pearson’s Product Correlation.

c. Relate two variables or treatments using simple linear regression.

d. Relate two or more predictor variables to a linear response variable using multiple regression.

8. Demonstrate proficiency in calculating inferential statistics (relationships of categorical variables) by achieving 80% on associated assignments and exams (Chapter 15).

a. Test the relationship of two or more categorical variables (tests of independence).

9. Demonstrate proficiency in creating and analyzing statistical process control charts for both continuous and qualitative variables by achieving 80% on associated assignments and exams (Chapter 17).

a. Create and analyze mean and range process control charts (x-barR charts).

b. Create and analyze mean and range process control charts (p-charts).

Meeting the Course Objective and Student Learning Outcomes

In meeting the course objective and learning outcomes, students must:

- Familiarize themselves with the Hawkes Learning System and Minitab software.
- Select the student-training link and listen to the presentation for HAWKES LEARNING. Read the Minitab documents (Meet Minitab) to familiarize with the software functions. These documents are found at the bottom of the main Learning Module page, in Canvas.
- Become familiar with Excel and the Excel tools provided in the Calculation Aids folder on the main Learning Module page (The link is on the main menu on the left side of the online classroom).
- Select and preview the lecture presentations and then listen to the recorded lectures (online and blended courses). Use the textbook as an additional reference for your understanding of the material presented in the lectures.
- Listen to any given appropriate assignment specific tutorial or Question and Answer.
• Complete the homework assignments. In completing the homework assignments follow the instructions given in this syllabus.

**Required textbook and software:**

NOTE: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. If you choose to use other sources to purchase the textbook, you must access the Hawkes Learning Store and purchase a separate student access code for your use during this course. Purchasing the textbook and software package either from the university bookstore or from Hawkes Learning System will ensure you have the most current software bundle. Post Script: Previous to FALL 2015, Minitab was not bundled with the textbook.

Hand held calculator. Must have square root key in addition to the basic functions of addition, subtraction, multiplication, and division – at a minimum. I do not provide instruction on the use of calculators.

MS Excel. Access to a computer with Microsoft EXCEL (you will use MS Excel).

Internet Access. Constant access to the internet is required to complete all assignments and exams. (It is your responsibility to ensure you have constant access to the internet).

All students are required to obtain the program: Minitab v. 19. The software is bundled with the textbook. You will need to take the Minitab access code to e-Academy OntheHub website using the following URL: http://www.onthehub.com/Minitab.
Recommended: Laptop computer, with Windows and MS Office suite. Only Minitab Express can be used on Apple operating systems. Please note: Minitab Express has a lower functionality than Minitab 18, but will meet all requirements of this course.

Please note: You will have to register with OnTheHub with your student email address in order for you to download the software (this could take 24-48 hours for OnTheHub to verify your email address).

**COURSE REQUIREMENTS**

**Individual Participation:** This is a face-to-face class. To insure successful course completion, regular attendance, and participation is expected. Reading and homework assignments will be in accordance with this syllabus and/or as assigned in class. It is important for students to become familiar with HAWKES LEARNING, as all assignments and exams will be conducted in HAWKES LEARNING. Lectures are based on given sections within the text.

**Attendance:** Although attendance is highly encouraged, we recognize that not all students are able to attend each class session. In such cases, where attendance is required, contact the professor or program secretary with information as soon as possible. It is not necessary to call when you are going to be late or absent unless your absence will be for more than one class period. It is the
responsibility of each student to submit assignments and become aware of other activities missed during absences.

**Canvas Classroom:** The classroom will be in the Canvas Learning Management System (LMS) under this course’s name and section number. Please refer all technical problems to the Canvas help desk; contact information is on the Canvas login page.

Login to A&M-Central Texas Canvas [https://tamuct.instructure.com].
   - Username: Your MyCT username (xx123 or everything before the "@" in your MyCT e-mail address)
   - Password: Your MyCT password

**Technology Support:** For login problems, students should contact Help Desk Central. 24 hours a day, 7 days a week:
   - Email: helpdesk@tamu.edu
   - Phone: (254) 519-5466
   - Web Chat: [http://hdc.tamu.edu]

*Please let the support technician know you are an A&M-Central Texas student.*

For issues with Canvas, select “chat with Canvas support,” submit a support request to Canvas Tier 1, or call the Canvas support line: 1-844-757-0953, links to all are found inside of Canvas using the “Help” link.

**Canvas Course Navigation:** Please read the “Start Here” letter (in the Canvas classroom) and become familiar with the online classroom environment.

**Canvas Discussions:** Select Discussions from the menu found on the left side of the Canvas class home page. All discussions and questions will be placed in their respective topics for ease of understanding by all class members and the instructor. All entries are threaded so that you may easily see a question and the respective responses to that question. All class members are invited to fully participate in the discussions, assisting their class members when they are able. This means class members may answer questions if they know the answers. Please note discussions are not required as part of your grade but are highly encouraged for better understanding and clarification of the theory and in conducting calculations of specified problems within Hawkes Learning System. The instructor will always read each question and the respective answers to ensure correctness and accuracy. If the instructor is unable to effectively answer the question in the threaded discussions groups, the instructor may provide a recorded answer (similar to the recorded lectures) and post that recorded answer in the Recorded Q&A folder on the main Learning Module webpage, in Canvas.

**Lectures:** All lecture presentations can be found in the respective Module folder on the homepage of the Canvas classroom. In addition to the classroom lectures, there will be several additional recorded lectures (probability concepts) that you will be required to view. You will find the link in their respective modules. View those before the weekly lecture is given in class. Recommend you use either an external speaker system or a headset to listen to the recorded lectures. All presentations are in Portable Document Format (.pdf). The schedule is the minimum requirement;
there is no penalty for working ahead. However, exams will be provided according to the schedule.

**Individual Participation:** To ensure successful course completion, participation is expected. Participation is defined as actual work conducted in the HAWKES learning environment and in discussion threads in the Canvas classroom. Listening to lectures is required and will be in accordance with this syllabus. It is important for students to become familiar with HAWKES LEARNING, as all work, quizzes, and exams will be conducted in HAWKES LEARNING. Lectures are based on given sections within the text.

**Access to Hawkes Learning System:** Please select the link for Getting Started with HAWKES LEARNING in the Getting Started menu in Canvas. Hawkes Course ID for business statistics is TAMUCTDBS. If you choose not to purchase a textbook, you will need to purchase the access code from the HAWKES LEARNING website.

Note: HAWKES LEARNING is designed to be used online. Students are responsible to have full internet access throughout this course, to ensure they are able to complete homework, quizzes, and exams.

**Assignments:** All assignments, quizzes, and exams will be accomplished through the Hawkes Learning System. HAWKES LEARNING is a Web-based, artificially intelligent assessment and learning system. There will not be any “traditional” homework assignments, as each student will be required to complete work on the HAWKES LEARNING system. In addition to exams students will be graded on the progress made through each chapter, in HAWKES LEARNING. See Grade Computation below. Late assignments and exams will be reduced 20% for each day they are late.

**Chapter Reviews:** The graded portions of the homework assignments will be the chapter review for each of the chapters. Students are advised to work through the practice problems within the chapter review section of each required chapter, prior to certifying in the chapter. Homework feedback is provided automatically when completing the chapter review for a grade (also known as certifying). Students will be given a minimum of “3 strikes”. This means the student may miss up to three questions, before being sent back to practice. If the student is sent back to practice, the program will automatically go to the area in which the student is having problems. If the student successfully completes the certifying chapter review, the HAWKES LEARNING grade book will be automatically updated.

In order to assist you in completing the chapter reviews, recorded videos of selected worked Practice Problems are available for your viewing. You should view these prior to beginning your practice sessions.

**Calculations Aids:** In addition to Minitab or Minitab Express, you will find MS Excel Spreadsheets available that will assist you in analyzing data used throughout this course. The aids are found in the Canvas Classroom in Module 0 by selecting the Modules link on the left-side menu.

**Exams:** There will be five objective exams administered during the semester as indicated on the course calendar. Exams represent the independent work of students. With the exception of
emergencies, any exam not made up within three days after the scheduled date, will be scored as a zero. All exams will be HAWKES LEARNING based and will be completed online. All students will be given minimum of 2 hours to complete 15-20 problems. All exams must be taken, as scheduled, to pass the course. HAWKES LEARNING provides immediate feedback, upon completion of the exam. Reenter the exam to see the problems missed and a correct method of answering the problems.

Exam 5 will be comprehensive. It will cover the remaining chapters, not covered in Exam 4, and will include any number of questions from the previous chapters. The focus of this exam will be on questions that cause you to conduct analyses using either Minitab / Minitab Express and/or MS Excel. The questions will be from the Hawkes test question database and will follow the same format as the previous four exams.

NOTE: You will fail this course if you attempt to only take the exams and not complete the required online homework assignments.

**Grading Criteria Rubric and Conversion**

**Grade Computation:** Students earn their course grades by completing scheduled assignments; no extra credit assignments are given. To pass this course satisfactorily, students must complete each of the graded items listed below. Failure to complete appropriate assignments and exams may result in a failing grade. Refusal to complete homework assignments will result in a failing grade.

**Grading Scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Point Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
<td>319.5-355</td>
</tr>
<tr>
<td>B</td>
<td>80-89.99%</td>
<td>284-318.5</td>
</tr>
<tr>
<td>C</td>
<td>70-79.99%</td>
<td>248.5-283</td>
</tr>
<tr>
<td>D</td>
<td>60-60.99%</td>
<td>213-243.5</td>
</tr>
<tr>
<td>F</td>
<td>59.99% &amp; below</td>
<td>0-212</td>
</tr>
</tbody>
</table>

Final grades will be calculated as follows:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet and Greet</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>5 Exams (40 points each)</td>
<td>200</td>
<td>56%</td>
</tr>
<tr>
<td>15 Homework Assignments: Chapter Reviews (10 points each)</td>
<td>150</td>
<td>42%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>355</td>
<td><strong>100%</strong></td>
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</tbody>
</table>

**Posting of Grades**

The grades will be available as soon as the student finishes the assessment activity in Hawkes learning. The grades will be transferred from Hawkes learning to Canvas with a week from the due date.
## COURSE OUTLINE AND CALENDAR
Complete Course Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Class/Activity</th>
<th>Subject</th>
<th>Homework / Exam Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 1</strong> 13-19 Jan</td>
<td>1</td>
<td>Intro</td>
<td>Introduction to HAWKES LEARNING and syllabus</td>
<td>Take this week to get to know HAWKES LEARNING, this syllabus, Minitab, and the Canvas classroom. Online: Meet &amp; Greet (19 Jan)</td>
</tr>
<tr>
<td><strong>Week 2</strong> 20-26 Jan (MLK: 20)</td>
<td>1</td>
<td>Wed: Lecture 1 (Ch 1-2)</td>
<td>Decision Making Using Statistics, Data Reality, and Problem Solving</td>
<td>Ch 1, Ch 2 Review (26 Jan)</td>
</tr>
<tr>
<td><strong>Week 3</strong> 27 Jan – 2 Feb</td>
<td>1</td>
<td>Lecture 2 (Ch 3)</td>
<td>Organizing, Displaying, and Interpreting Data</td>
<td>Ch 3 Review (2 Feb)</td>
</tr>
<tr>
<td><strong>Week 4</strong> 3-9 Feb</td>
<td>1</td>
<td>Lecture 3 (Ch 4.1 – 4.3)</td>
<td>Numerical Descriptive Statistics</td>
<td>Ch 4 Review (9 Feb)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Lecture 4 (Ch 4.4, 4.5, 4.7, 4.8)</td>
<td>View recorded “lecturettes” to provide background in probability and proportions</td>
<td></td>
</tr>
<tr>
<td><strong>Week 5</strong> 10-16 Feb</td>
<td>1 / 2</td>
<td>Exam 1</td>
<td>Exam (Lectures 1 – 4; Chapters 1-4) Discrete Probability Distributions,</td>
<td>EXAM 1 (10-11 Feb)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wed: Lecture 5 (Ch 6)</td>
<td>Mutually Exclusive / Independent Probabilities</td>
<td>View recorded “lecturettes” to provide background in probability.</td>
</tr>
<tr>
<td><strong>Week 6</strong> 17-23 Feb</td>
<td>2</td>
<td>Lecture 6 (Ch 6)</td>
<td>Discrete Probability Distributions,</td>
<td>Ch 6 Review (23 Feb)</td>
</tr>
<tr>
<td>Week</td>
<td>Module</td>
<td>Class/Activity</td>
<td>Subject</td>
<td>Homework / Exam Due Dates</td>
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<tr>
<td>Week 7</td>
<td>2 / 3</td>
<td>Lecture 7 (Ch 7)</td>
<td>Continuous Random Variables</td>
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<tr>
<td>24 Feb – 1 Mar</td>
<td></td>
<td>Lecture 8 (Ch 8)</td>
<td>Sampling and Sampling Distributions</td>
<td>Ch 7 Review, Ch 8 Review (1 Mar)</td>
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<td></td>
<td></td>
<td>Lecture 9 (Ch 9)</td>
<td>Confidence Intervals</td>
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<tr>
<td>Week 8</td>
<td>2 / 3</td>
<td>Exam 2</td>
<td>Exam 2 (Lectures 5-8; Chapters 6-8)</td>
<td>EXAM 2 (2-3 Mar)</td>
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<tr>
<td>2-8 Mar</td>
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<td>Wed: Lecture 9 (Ch 9)</td>
<td>Confidence Intervals</td>
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<td><strong>Spring Break (9 – 13 March 2020)</strong></td>
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<tr>
<td>Week 9</td>
<td>3</td>
<td>Lecture 10 (Ch 9)</td>
<td>Sample Sizes Hypothesis testing</td>
<td>CH 9 Review (22 Mar)</td>
</tr>
<tr>
<td>16-22 Mar</td>
<td></td>
<td>Lecture 11 (Ch 10)</td>
<td>Hypothesis testing</td>
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<td>Comparing Populations</td>
<td>Ch 10 Review (29 Mar)</td>
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<tr>
<td>Week 10</td>
<td>3</td>
<td>Lecture 12 (Ch 10)</td>
<td>Hypothesis testing</td>
<td></td>
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<tr>
<td>23-29 Mar</td>
<td></td>
<td>Lecture 13 (Ch 11)</td>
<td>Comparing Populations</td>
<td>Ch 11 Review (5 Apr)</td>
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<tr>
<td></td>
<td></td>
<td>Lecture 14-15 (Ch 11)</td>
<td>Comparing Populations</td>
<td></td>
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<tr>
<td>Week 11</td>
<td>3</td>
<td></td>
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<tr>
<td>30 Mar - 5 Apr</td>
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<tr>
<td>Week 12</td>
<td>4</td>
<td>Exam 3</td>
<td>Exam 3 (Lectures 9-15; Chapter 9-11)</td>
<td>EXAM 3 (6-7 Apr)</td>
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<tr>
<td>6-12 Apr Easter: 12</td>
<td></td>
<td>Wed: Lecture 16 (Ch 12)</td>
<td>Analysis of Variance (ANOVA)</td>
<td>Ch 12 Review (11 Apr)</td>
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<tr>
<td>Week 13</td>
<td>4</td>
<td>Lecture 17 (Ch 13)</td>
<td>Regression, Inference, and Model Building</td>
<td>Ch 13 Review (19 Apr)</td>
</tr>
<tr>
<td>13-19 Apr</td>
<td></td>
<td>Lecture 18 (Ch 14)</td>
<td></td>
<td>Ch 14 Review (19 Apr)</td>
</tr>
<tr>
<td>Week 14</td>
<td>4</td>
<td>Exam 4</td>
<td>Exam 4 (Lectures 16-18; Chs 12-14)</td>
<td>EXAM 4 (20-21 Apr)</td>
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## COURSE OUTLINE AND ASSIGNMENTS

<table>
<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Class/Activity</th>
<th>Subject</th>
<th>Homework / Exam Due Dates</th>
</tr>
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<tbody>
<tr>
<td>20-26 Apr</td>
<td></td>
<td>Lecture 19 (Ch 15)</td>
<td>Looking for Relationships in Qualitative Data</td>
<td>Ch 15 Review (26 Apr)</td>
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<tr>
<td></td>
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<td>Contingency Tables</td>
<td>View recorded “lecturette” to provide background in contingency tables.</td>
<td></td>
</tr>
<tr>
<td>Week 15</td>
<td>4</td>
<td>Lecture 19 (Ch 15)</td>
<td>Looking for Relationships in Qualitative Data</td>
<td>Ch 17 Review (3 May)</td>
</tr>
<tr>
<td>27 Apr – 3 May</td>
<td></td>
<td>Contingency Tables Lecture 20 (Ch 17)</td>
<td>View recorded “lecturette” to provide background in contingency tables. Statistical Process Control</td>
<td></td>
</tr>
<tr>
<td>Week 16</td>
<td>4</td>
<td>Exam 5</td>
<td>Exam 5 (Comprehensive: All chapters)</td>
<td>EXAM 5 (4-7 May)</td>
</tr>
<tr>
<td>4-8 May</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Important University Dates:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/13</td>
<td>Classes Begin for Fall semester</td>
</tr>
<tr>
<td>01/15</td>
<td>Deadline for Add, Drop, and Late Registration for 16- and First 8-Week Classes</td>
</tr>
<tr>
<td>01/20</td>
<td>Martin L. King Jr. Day</td>
</tr>
<tr>
<td>01/29</td>
<td>Deadline to drop 16-Week Classes with No Record</td>
</tr>
<tr>
<td>03/09 – 03/12</td>
<td>Spring break</td>
</tr>
<tr>
<td>03/27</td>
<td>Deadline for Graduation Application for Ceremony Participation</td>
</tr>
<tr>
<td>04/03</td>
<td>Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)</td>
</tr>
<tr>
<td>05/08</td>
<td>Deadline to Withdraw from University for 16- and Second 8-Week Classes</td>
</tr>
<tr>
<td></td>
<td>Fall Semester Ends</td>
</tr>
<tr>
<td>05/09</td>
<td>Commencement Ceremony Bell County Expo Center 7:00 p.m.</td>
</tr>
</tbody>
</table>

**Technology Requirements**

This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.

Logon to A&M-Central Texas Canvas [https://tamuct.instructure.com/] or access Canvas through the TAMUCT Online link in myCT [https://tamuct.onecampus.com/]. You will log in through our Microsoft portal.
Username: Your MyCT email address. Password: Your MyCT password

Students should have access to computer with Microsoft Word, PowerPoint, Excel, PDF reader along with proper internet service and browser (Required). Students can obtain a free PDF reader at http://www.adobe.com/products/acrobat/readstep.html. All the materials related to the course will be available in electronic format (lecture slides, video lectures, homework assignments, exams and solutions) in canvas: https://tamuct.instructure.com. Students will also be required to submit the scanned copies or images of the assignments and exams. Therefore, students are required to have scanner and/or camera to take pictures.

Canvas Support
Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.
For issues related to course content and requirements, contact your instructor.

Other Technology Support
For log-in problems, students should contact Help Desk Central
24 hours a day, 7 days a week
Email: helpdesk@tamu.edu
Phone: (254) 519-5466
Web Chat: [http://hdc.tamu.edu]

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Drop Policy
If you discover that you need to drop this class, you must complete a Drop Request Form [https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf].

Professors cannot drop students; this is always the responsibility of the student. The Registrar’s Office will provide a deadline on the Academic Calendar for which the form must be completed, signed and returned. Once you return the signed form to the Registrar’s Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar’s Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Academic Integrity
Texas A&M University -Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing
grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student’s academic performance and includes, but is not limited to, working with others in an unauthorized manner, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student’s work, collusion, and the abuse of resource materials. All academic misconduct concerns will be referred to the university’s Office of Student Conduct. Ignorance of the university’s standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more information regarding the Student Conduct process, [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may submit a report, [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

Academic Accommodations
At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Office of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the university’s programs, services and activities. If you believe you have a disability requiring reasonable accommodations please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information please visit our Access & Inclusion Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Important information for Pregnant and/or Parenting Students
Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education’s Office of Civil Rights, the Dean of Student Affairs’ Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit Student Affairs [https://www.tamuct.edu/student-affairs/index.html]. Students may also contact the institution’s Title IX Coordinator. If you would like to read more about these requirements and guidelines online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University’s Title IX Coordinator.

Tutoring
Tutoring is available to all A&M-Central Texas students, both on-campus and online.
Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111. Tutor.com tutoring will not offer writing support beginning August 1, 2019, but will continue to offer other tutoring support.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or have any other question, contact Academic Support Programs at (254) 501-5836, visit the Office of Student Success at 212F Warrior Hall, or by emailing studentsuccess@tamuct.edu.

Chat live with a tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas. Access Tutor.com through Canvas.

**University Writing Center**
Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University–Central Texas (TAMUCT) is a free workspace open to all TAMUCT students from 10:00 a.m.-5:00 p.m. Monday thru Thursday with satellite hours in the University Library Monday thru Thursday from 6:00-9:00 p.m. This semester, the UWC is also offering online only hours from 12:00-3:00 p.m. on Saturdays.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students’ ideas and writing, our tutors highlight the ways in which they read and interpret students’ texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available) or by making an appointment via WCOnline [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC and/or need any assistance with scheduling.

**University Library**
The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 85,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources.
On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our Library website [http://tamuct.libguides.com/index].

OPTIONAL POLICY STATEMENTS

A Note about Sexual Violence at A&M-Central Texas
Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don’t agree with their behaviors and tell survivors we will support them. Your actions matter. Don’t be a bystander; be an agent of change. For additional information on campus policy and resources visit the Title IX webpage [https://www.tamuct.edu/departments/compliance/titleix.php].

Behavioral Intervention
Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, who are exhibiting concerning behaviors, or individuals causing a significant disruption to our community, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the referral online [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the Behavioral Intervention Team website for more information [https://www.tamuct.edu/student-affairs/bat.html]. If a person’s behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5800.
INSTRUCTOR POLICIES
Following are some of the instructor related policies. Students are required to follow them over the entire course period.

Class Policy: Instructor holds the right to change certain policies such as reading schedule, late submissions if the instructor feels it is necessary or beneficial for the class.

Late submissions: The instructor will not accept late submissions under any circumstances without appropriate documentation.

Emergency situation: It is the responsibility of the student to work with professor for assignment submissions under emergency. The student need to contact the professor as soon as possible, i.e., within 15 days of emergency. The professor will not accept any reasoning for non-submission after 15 days of emergency. If the student fails to complete 30% of the course without notifying the professor, then the instructor will not accept any makeups or resubmissions. In that case, the student needs to either drop the course or receive the overall earned grade.

Academic Integrity: If the student violates any academic integrity (that include, but not limited to cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student’s work, collusion, and the abuse of resource materials), the student will receive the following penalty:

1st Offense: One downgrade and the student has to write a 1500 word paper on academic integrity. The due date for the submission of the paper will be 3 weeks from the day of realization of violation of academic integrity by the student.

2nd Offense: The student will receive failing grade.

Note 4: Under both offenses mentioned above, the student will be reported to university’s Office of Student Conduct.

Netiquette: Online communication is a very critical component of any online environment, and in this course, you are expected to conduct yourself in the same respectful manner that would be followed in a face-to-face course. Be sure to abide by the following guidelines when participating in the various methods of communication with instructors and classmates:

- Think your response through before responding. Before you submit your comments, proofread your comments to prevent any misunderstandings from occurring.
- Do not capitalize everything. Capital letters may be used for the occasional EMPHASIS, but avoid typing completely in capital letters AS IT MAY APPEAR AS THOUGH YOU'RE SHOUTING!
- Keep conversations clean from foul language. The online course is an environment for positive feedback and productive dialogue. Profanity will not be tolerated.
- Use correct spelling and proper grammar. Keep your responses on topic and concise. Do
not write long responses, for it will not likely be read or take up too much of another person's time.

- Do not ramble. You are not the only person behind a keyboard. Be mindful of others' feelings and treat them with the same respect that everyone deserves.
- Communicate respectfully.

In this course, you are also expected to abide by the University's student code of conduct and the policies on classroom. View the University's Student Code of Conduct online (https://www.tamuct.edu/student-affairs/student-conduct.html). Visit the Office of Student Conduct Website here. (https://www.tamuct.edu/student-affairs/student-conduct.html)

Copyright Notice
Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas’ Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

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