PHC6050 Statistical Methods for Health Science I (3 credit hours)
Spring: 2020
Delivery Format: Online
Open Access Course Materials: http://bolt.mph.ufl.edu/
Course Specific Content and Assessments in E-Learning: http://elearning.ufl.edu/

STARTING THIS COURSE: Read this syllabus. You must take the “Syllabus Quiz” (Quiz 0) in CANVAS and earn a 100% in order to start the course. This quiz is located under Assignments. The quiz is based on the information contained in this syllabus and may be taken as many times as needed to earn a 100%. This quiz is required and will count toward your final grade.

Instructor Name: Dr. Yichao Yu
Room Number: CTRB 5213
Phone Number: 352-294-5927
Email Address: yyu2013@ufl.edu
Office Hours: Tuesday 3-4 pm in office, Mondays 8-9 pm online (Zoom Meeting ID: 5899686197), or by appointment
Teaching Assistants: Ashlyn Anderson (aanderson3@ufl.edu)
Preferred Course Communications:
- Ask about specific questions or issues of a personal nature by email through CANVAS inbox in E-learning.
- Ask more general questions (NOT personal or specific quiz questions) on the discussion board in E-learning.

Prerequisites
There is no specific prerequisite courses, but students should be comfortable working with equations and performing basic mathematical calculations including order of operations, fractions, and square roots.

Purpose and Outcome

Course Overview
Statistical methods for description and analysis provide investigators with useful tools for making sense of data. The pervasiveness of statistics in public health as well as other fields has led to increased recognition that statistical literacy – familiarity with the goals and methods of statistics – should be a basic component of a well-rounded educational program. In this course, students will develop statistical vocabulary, learn methods for descriptive data analysis, study the fundamentals of probability and sampling distributions, learn methods for statistical inference and hypothesis testing based on one or two samples, and become familiar with categorical data analysis and linear regression. Data analysis will be conducted in SPSS.

Relation to Program Outcomes
This three-credit course is a required concentration core course for MPH Biostatistics students and covers the following competencies.
- Describe the role of biostatistics in public health research.
- Use appropriate statistical methodology to address public health problems.
• Apply software to conduct statistical analyses.

Course Objectives and/or Goals

Upon successful completion of this course, students will be able to

• CO-1: Describe the role biostatistics serves in the discipline of public health.
• CO-2: Differentiate among different sampling methods and discuss their strengths and limitations.
• CO-3: Describe the strengths and limitations of designed experiments and observational studies.
• CO-4: Distinguish among different measurement scales, choose the appropriate descriptive and inferential statistical methods based on these distinctions, and interpret the results.
• CO-5: Determine preferred methodological alternatives to commonly used statistical methods when assumptions are not met.
• CO-6: Apply basic concepts of probability, random variation, and commonly used statistical probability distributions.
• CO-7: Use statistical software to analyze public health data.
• CO-8: Develop presentations based on statistical analyses for both public health professionals and educated lay audiences.

Description of Course Content

Topical Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Date(s)</th>
<th>Topic(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/6-1/10</td>
<td>Introduction and Preliminaries</td>
</tr>
<tr>
<td>2</td>
<td>1/13-1/17</td>
<td>Unit 1A – EDA for One Variable</td>
</tr>
<tr>
<td>3</td>
<td>1/21-1/24</td>
<td>Unit 1B – EDA for Two Variables</td>
</tr>
<tr>
<td>4</td>
<td>1/27-1/31</td>
<td>Remainder of Unit 1 and All of Unit 2</td>
</tr>
<tr>
<td>5</td>
<td>2/3-2/7</td>
<td>Unit 3A – Probability</td>
</tr>
<tr>
<td>6</td>
<td>2/10-2/14</td>
<td>Unit 3B – Discrete Random Variables</td>
</tr>
<tr>
<td>7</td>
<td>2/17-2/21</td>
<td>Unit 3B – Continuous Random Variables</td>
</tr>
<tr>
<td>8</td>
<td>2/24-2/28</td>
<td>Unit 3B – Sampling Distributions</td>
</tr>
<tr>
<td>9</td>
<td>3/2-3/6</td>
<td>SPRING BREAK, NO CLASS</td>
</tr>
<tr>
<td>10</td>
<td>3/9-3/13</td>
<td>Unit 4A – Estimation</td>
</tr>
<tr>
<td>11</td>
<td>3/16-3/20</td>
<td>Unit 4A – Hypothesis Testing</td>
</tr>
<tr>
<td>12</td>
<td>3/23-3/27</td>
<td>Unit 4A – Hypothesis Testing</td>
</tr>
<tr>
<td>13</td>
<td>3/30-4/3</td>
<td>Unit 4B – Inference for Relationships (Case CQ)</td>
</tr>
<tr>
<td>14</td>
<td>4/6-4/10</td>
<td>Unit 4B – Inference for Relationships (Case CC &amp; QQ)</td>
</tr>
<tr>
<td>15</td>
<td>4/13-4/17</td>
<td>Unit 4B – Inference for Relationships (Case CC &amp; QQ)</td>
</tr>
<tr>
<td>16</td>
<td>4/20-4/24</td>
<td>Review</td>
</tr>
<tr>
<td>17</td>
<td>4/27-5/1</td>
<td>Final Exam Week</td>
</tr>
</tbody>
</table>

Detailed schedule for course materials and due dates can be found in the end of the syllabus.

Course Materials and Technology

All course materials are available online either through CANVAS (http://elearning.ufl.edu) or in the online open access textbook (http://bolt.mph.ufl.edu). You will also need access to the statistical software package, SPSS. There is no
required textbook to purchase for this course. However, I recommend the following textbook for additional examples/exercises:


IMPORTANT: Course materials discuss a few software packages. **In PHC 6050 you are only responsible for SPSS.**

**Videos**

Most videos presented in the course material are stored in YouTube. If the text in the video is too blurry, try increasing the quality of the YouTube video using the small gear icon which appears at the bottom of the video when it is playing. If you want to view the video faster or slower, you can adjust the speed using the gear icon. Many videos have closed captions and/or transcripts available.

**Statistical Software – SPSS**

There are two ways of SPSS Licensing for Students at UF. You can also obtain this software from other resources.

Direct student leasing is available for use on personally-owned computer. It can be purchased ON CAMPUS at the UF Computing Help Desk located at the 132 HUB Stadium Road which should be the one mentioned here [http://helpdesk.ufl.edu/software-services/spss/](http://helpdesk.ufl.edu/software-services/spss/) (or search for “SPSS licensing for Students” at [https://software.ufl.edu/](https://software.ufl.edu/)). The most current version is SPSS v25. SPSS is available for both Windows and Macintosh. It may require additional time for the OS X media to be created. Please let the Help Desk know if you require additional media for a non-Windows install. Currently, it is not possible to obtain this software remotely (off main campus). All UF students located off main campus are directed to use IBM® SPSS® educational sales program with ONTHEHUB – [http://www.onthehub.com/spss/](http://www.onthehub.com/spss/). It is currently the only means to provide this media.

SPSS is also available on UFApps for students, [https://info.apps.ufl.edu](https://info.apps.ufl.edu). Besides SPSS, this free Apps server also provide various other applications such as Microsoft Office. This works for any computing device from any location at any time, as long as you log in with your GatorLink Credentials. Many students have been successful at using this system for their assignments in this course. We do not have tutorials working with this system; so, if you use this, you will need to learn additional skills on your own regarding how the apps server works with files and how to get information back and forth between your computer and the APPS server. I highly recommend storing your files on the M: drive (can also be found in UFApps) because it provides the best performance when working with files in UFApps. You may find this information very useful: [https://info.apps.ufl.edu/frequently-asked-questions/first-time-use/](https://info.apps.ufl.edu/frequently-asked-questions/first-time-use/), [https://info.apps.ufl.edu/frequently-asked-questions/using-ufapps/](https://info.apps.ufl.edu/frequently-asked-questions/using-ufapps/), and [https://info.apps.ufl.edu/frequently-asked-questions/access-canvas-from-within-ufapps/](https://info.apps.ufl.edu/frequently-asked-questions/access-canvas-from-within-ufapps/).

The version available through UF is less expensive than the versions you can buy elsewhere; however, if you buy this software from another source be sure to obtain either the STANDARD GRADUATE PACK (GRADPACK) or PREMIUM GRADUATE PACK. The BASE or other versions may not have enough functionality for this course.

**SPSS Tutorials**

There are tutorials provided on online textbook for all skills needed for assignments in this course ([https://bolt.mph.ufl.edu/software/spss/](https://bolt.mph.ufl.edu/software/spss/)). We have tried to make it as easy as possible to follow along with the tutorials. Watching the videos at a slower speed can help. Viewing the transcripts while you watch or work in SPSS may also help. Whenever possible, many students find it helpful to have the videos playing in one window, monitor, or other device while working in the software in another, pausing as needed to work through the process with your own data.

**Recommended SPSS Books (optional – extra resources)**
Although we will provide tutorials for all SPSS skills required for this course, there are numerous SPSS guides available if you wish to purchase one. The best for you may depend on what you might be doing with SPSS after our course. I have had recommendations from students for Julie Pallant’s “SPSS Survival Manuals.” Many resources are available both in print and online via the UF library. Your recommendations for others are also appreciated.

**E-learning**

An E-Learning site is available for the course ([http://elearning.ufl.edu](http://elearning.ufl.edu)). The weekly schedule and all course materials are available online through this site including grades, assignments, discussions boards, and other course information. It is very important to check the weekly page and review all announcements carefully.

**Announcements**

Class announcements will be sent via the Announcements tool in E-Learning. You should have your CANVAS notification settings to send alerts to your UF email for announcements through CANVAS. You are responsible for all information in these announcements. As a student of the University of Florida, it is very important to check your UFL email address and course sites regularly. An easy way to access your UF email account is at [http://webmail.ufl.edu](http://webmail.ufl.edu).

**Discussion Boards**

Reviewing the discussion posts of other students in E-learning and posting your own can be very helpful.

**Computing**

Please review the Student Computing requirements appropriate for you found at [http://mph.ufl.edu/current-students/student-essentials/technology-requirements/](http://mph.ufl.edu/current-students/student-essentials/technology-requirements/).

**Flash**

Embedded self-assessment quizzes and other components of the course materials require Flash. Be sure to enable Flash in your browser and update if needed ([http://www.adobe.com/software/flash/about/](http://www.adobe.com/software/flash/about/)).

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- [https://lss.at.ufl.edu/help.shtml](https://lss.at.ufl.edu/help.shtml)

**Academic Requirements and Grading**

**Quizzes**

There will be untimed quizzes in CANVAS due each **Wednesday by 10pm** covering the material assigned for the review of the previous week. You have the opportunity to take each quiz up to three times before the due date. Your highest of these scores will be recorded.

Quizzes test basic definitions and skills and may sometimes be cumulative in that they will go back and ask earlier questions. We highly recommend that you start your first attempt early and take your three attempts on different days with time for reviewing the course material in between. When you submit a quiz attempt, you will see your grade and will be able to review your quiz attempt. For each question, you will see whether you answered correctly or incorrectly but it will not reveal the correct answer for any you did not answer correctly. There will also be feedback for each question which will direct you to the most important content to review.
Assignments

Most assignments will involve data analysis in software and interpretation and/or certain questions which cannot be easily presented in the quizzes. Assignments will be due on **Mondays at 10pm**, but all assignments except the first and last will require extended work and should be started as early as possible, no later than the week prior to the due date, in order to have time to address any questions or issues.

For all **software assignments** in this course, if you are not receiving full score for software part (Part A) that submitted before its deadline, please check the comments and feedback from us and correct the corresponding mistakes. You still have chances to resubmit software part (Part A) before the deadline of written part (Part B). If the first submission of software part is after deadline of Part A but before deadline of Part B, software part will still be viewed but will received a grade of zero.

Course Project

Each student will individually prepare a course project consisting of a guided data analysis based upon two (hopefully linearly related) quantitative variables. These variables will then be categorized in two ways (2 levels, 3+ levels). The relationship between the two variables will be investigated using different combinations of variable types. This course project will be completed in 4 STEPS during the semester.

Grading

<table>
<thead>
<tr>
<th>Requirement</th>
<th>% of final grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (15)</td>
<td>26%</td>
</tr>
<tr>
<td>Assignments (7)</td>
<td>45%</td>
</tr>
<tr>
<td>Software for Assignments (3)</td>
<td>5%</td>
</tr>
<tr>
<td>Software for Course Project (STEP 1, 2, 3)</td>
<td>10%</td>
</tr>
<tr>
<td>Course Project STEP 4</td>
<td>14%</td>
</tr>
</tbody>
</table>

Point system used (i.e., how do course points translate into letter grades).

<table>
<thead>
<tr>
<th>Points Earned</th>
<th>94-100</th>
<th>90-93</th>
<th>85-89</th>
<th>80-84</th>
<th>77-79</th>
<th>74-76</th>
<th>70-73</th>
<th>67-69</th>
<th>64-66</th>
<th>60-63</th>
<th>57-59</th>
<th>&lt;57</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td>C</td>
<td>C-</td>
<td>D+</td>
<td>D</td>
<td>D-</td>
<td>E</td>
</tr>
<tr>
<td>Grade Points</td>
<td>4.0</td>
<td>3.67</td>
<td>3.33</td>
<td>3.0</td>
<td>2.67</td>
<td>2.33</td>
<td>2.0</td>
<td>1.67</td>
<td>1.33</td>
<td>1.0</td>
<td>0.67</td>
<td>0</td>
</tr>
</tbody>
</table>

Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0 based on 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if based on credits in courses numbered 5000 or higher that have been earned with a B+ or higher.

More information on UF grading policy may be found at: [http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades](http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades)

Policy Related to Make up Work

**All work must be submitted via E-Learning by the exact due date and time.** Any late submission or missed work will receive a grade of ZERO unless arrangements have been made ahead of the due date with the instructor. Late submission or make-ups is acceptable ONLY as a result of illness or other unanticipated circumstances warranting a medical excuse and resulting in the student missing an assignment deadline, consistent with College policy. Documentation from a health care provider is required.
Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (http://helpdesk.ufl.edu/) correspondence. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

This is an online course. “Attendance” means you are expected to go through the course materials, take notes, pay attention to and post in the discussion boards. This is to be done at your own pace, but assignments and quizzes have scheduled deadlines to keep you on track. You are welcome to get ahead if you need flexibility in future weeks.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Student Expectations, Roles, and Opportunities for Input

Expectations Regarding Course Behavior

It is important to review the weekly page in CANVAS and read all announcements carefully. The materials for each week will be clearly identified in the E-Learning site for the course. Students are expected to work through the material as scheduled. It is very important to work through all content contained on this site as directed and ask questions about the material you do not understand. Working through the content from start to finish is the best approach to achieve a high level of understanding and success in this course. In addition, it is your responsibility to review the comments and feedback we give on your graded assignments.

The primary difference between the online and campus versions of this course is an attendance and group activity requirement. The group activities are based upon the worksheets which are always available from links in the weekly schedule on CANVAS. Although the worksheets are used for campus students, I highly urge you to go through the solutions and ask if you need further clarification.

Communication Guidelines

Questions about course material should be asked during office hours or posted on the course discussion boards in E-Learning. Questions about specific quiz questions or issues of a personal nature should be sent by email through E-Learning. For questions asked Monday-Thursday, we will try our best to respond within 24 hours. For questions asked Friday-Sunday, we will respond Monday or as soon as possible thereafter.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For
additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/
http://gradschool.ufl.edu/students/introduction.html

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

ADVICE

All that I can ask is that you do the best you can with the materials that are made available to you and to ask when you need more direction or explanation.

It is expected that you will spend approximately 10-12 hours per week on this course. This is roughly equivalent to 3 hours in class combined with 6-9 hours outside of class. Scheduling your time wisely and working efficiently will minimize the need for extra work in this course.

Generally, I advise students to break this time up into blocks of 1-3 hours split over as many days of the week as possible given your schedule. Working on too much material in one sitting is more likely to cause frustration and does not allow for time for understanding to develop or for questions to be answered.

Learn to use the materials to your greatest advantage. There is a lot of content, but if you understand the examples we present or if you have experience with certain topics, it may not be necessary to review all of the content we provide.

The questions presented in the “Learn by Doing” and “Did I Get This” activities as well as the course worksheets are indicative of important questions and concepts that you will need to understand and are designed to teach as well as test your understanding. We highly encourage you to go through these as they are presented in the online textbook (for the “Learn by Doing” and “Did I Get This” activities) and on the Course Resources page in E-Learning (for the worksheets).

If you go through the content as directed, you will learn the skills you need to succeed in the course as well as build a foundation of statistical knowledge. If at times you feel lost, please ask but also understand that the course is building to a complete picture. Sometimes it is hard to see how each topic is related until later in the semester when we tie everything together. Often in the “Learn by Doing” activities and worksheets we are leading you to think about things that will be important later in the course in addition to working on skills related to the current topic.

Watch the software tutorials carefully, especially if you find the software aspect challenging, and review our suggestions in the SPSS information section earlier. Do not allow yourself to waste time working in the software. If you are having issues, let us know immediately and we will help as soon as possible. Try to make sure as much of your time as possible in the software is productive.

Be sure to ask when you don’t understand, and work hard to stay on track with the material. Getting behind can be difficult to fix in any course. Let the instructor know as soon as possible if you feel you are falling behind.
SUPPORT SERVICES

Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: http://www.counseling.ufl.edu. On line and in person assistance is available.
- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: https://shcc.ufl.edu/
- Crisis intervention is always available 24/7 from:
  Alachua County Crisis Center:
  (352) 264-6789
  http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida’s Non-Discrimination Policy, which reads, “The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans’ Readjustment Assistance Act.” If you have questions or concerns about your rights
and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu.
## PHC 6050 Online Schedule for Course Materials and Due Dates

For more details, see the weekly schedule in E-learning

<table>
<thead>
<tr>
<th>Content to Review</th>
<th>Major Upcoming Activities and Assignments (See E-learning Weekly Page for More Details)</th>
<th>Monday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 1</strong></td>
<td></td>
<td>1/6</td>
<td>1/8</td>
</tr>
</tbody>
</table>
| Introduction and Preliminaries | • Assignment #1  
• Syllabus Quiz  
• Quiz #1 |                              |        |           |
| **Week 2**        |                                                                                        | 1/13   | 1/15      |
| Unit 1A – EDA for One Variable | • Worksheet #1 – Variables  
• Assignment #1  
• Syllabus Quiz  
• Quiz #1  
• Quiz #2 | Due 10:00pm  
• Assignment #1 – Self Assessment | Due 10:00pm  
• Syllabus Quiz in Assessments  
• Quiz #1 – Preliminaries |
|                   | **DUE BY END OF THIS WEEK:**  
Software Working!!! 6050 = SPSS |        |           |
| **Week 3**        |                                                                                        | 1/20   | 1/22      |
| Unit 1B – EDA for Two Variables | • Worksheet #1 – Variables  
• Quiz #2  
• Quiz #3  
• Assignment #2A | Due 10:00pm  
• Quiz #2 – Unit 1 (Part 1 – Through “Normal Shape”) | Holiday: Martin Luther King Jr. Day |
| **Week 4**        |                                                                                        | 1/27   | 1/29      |
| Remainder of Unit 1 and All of Unit 2 | • Quiz #3  
• Quiz #4  
• Assignment #2A  
• Assignment #2B | Due 10:00pm  
• Assignment #2 Part A – EDA for One Variable (Software) | Due 10:00pm  
• Quiz #3 – Unit 1 (Part 2 – Role-type through Linear Regression) |
<table>
<thead>
<tr>
<th>Content to Review</th>
<th>Major Upcoming Activities and Assignments (See E-learning Home Page for More Details)</th>
<th>Monday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 5</strong></td>
<td></td>
<td>2/3</td>
<td>2/5</td>
</tr>
</tbody>
</table>
| Unit 3A – Probability | • Worksheet #2 – Probability  
• Quiz #4  
• Quiz #5  
• Assignment #2B  
• Assignment #3, #4, or #5 | Due 10:00pm  
• Assignment #2 Part B – EDA for One Variables (Written) | Due 10:00pm  
• Quiz #4 – Causation – Unit 2 |
| **Unit 3B – Discrete RVs** | • Worksheet #3 – Discrete RVs  
• Quiz #5  
• Quiz #6  
• Assignment #3A  
• Assignment #3B  
• Assignment #4 | Due 10:00pm  
• Assignment #3 Part A – Case CC and CQ (Software) | Due 10:00pm  
• Quiz #5 – Unit 3A - Probability |
| **Week 7**       |                                                                                     | 2/17   | 2/19      |
| Unit 3B – Continuous RVs | • Worksheet #4 – Continuous RVs  
• Quiz #6  
• Quiz #7  
• Assignment #3B  
• Assignment #4  
• Assignment #5A  
• Course Project STEP 1 | Due 10:00pm  
• Assignment #3 Part B – Case CC and Case CQ (Written)  
• Assignment #4 – Independent Events | Due 10:00pm  
• Quiz #6 – Unit 3B – Discrete RVs |
| **Week 8**       |                                                                                     | 2/24   | 2/26      |
| Unit 3B – Sampling Distributions | • Quiz #7  
• Quiz #8  
• Assignment #5A  
• Assignment #5B  
• Course Project STEP 1 | Due 10:00pm  
• Assignment #5 Part A – EDA for Two Variables (Software) | Due 10:00pm  
• Quiz #7 – Unit 3B – Continuous RVs |
<p>| <strong>Week 9</strong>       |                                                                                     | 3/2    | 3/4       |
| <strong>SPRING BREAK</strong> |                                                                                     |        |           |</p>
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<tr>
<th>Content to Review</th>
<th>Major Upcoming Activities and Assignments (See E-learning Home Page for More Details)</th>
<th>Monday</th>
<th>Wednesday</th>
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| **Week 10**                       | • Worksheet #5 – Estimation  
• Quiz #8  
• Quiz #9  
• Assignment #5B  
• Course Project STEP 1                                                                 | 3/9          | 3/11                                     |
| Unit 4A – Estimation              | Due 10:00pm  
• Assignment #5 Part B – EDA for Two Variables (Written)  
• Course Project STEP 1                                                                 |              | Due 10:00pm  
• Quiz #8 – Unit 3B – Sampling Distributions                                   |
| **Week 11**                       | 3/16          | 3/18                                     |
| Unit 4A – Hypothesis Testing      | • Worksheet #6– Hypothesis Testing  
• Quiz #9  
• Quiz #10  
• Course Project STEP 2  
• Assignment #6                                                                 |              | Due 10:00pm  
• Quiz #9 – Unit 4A – Estimation                                                  |
| **Week 12**                       | 3/23          | 3/25                                     |
| Unit 4A – Hypothesis Testing      | • Worksheet #6– Hypothesis Testing  
• Quiz #10  
• Course Project STEP 2  
• Assignment #6                                                                 | Due 10:00pm  
• Course Project STEP 2                                                           |              |                                         |
| **Week 13**                       | 3/30          | 4/1                                      |
| Unit 4B – Inference for Relationships (Case CQ) | • Quiz #10  
• Quiz #11  
• Course Project STEP 3  
• Assignment #6                                                                 | Due 10:00pm  
• Quiz #10 – Unit 4A – Hypothesis Testing                                          |              |                                         |
| **Week 14**                       | 4/6           | 4/8                                      |
| Unit 4B – Inference for Relationships (Case CC & QQ) | • Quiz #11  
• Quiz #12  
• Course Project STEP 3  
• Assignment #6  
• Bonus: Paired T-test in Software                                                                 | Due 10:00pm  
• Course Project STEP 3  
• Assignment #6 – Examples from Literature                                           | Due 10:00pm  
• Quiz #11 – Unit 4B – Case CQ                                                    |
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<tr>
<td>Week 15</td>
<td><strong>Unit 4B – Inference for Relationships (Case CC &amp; QQ)</strong>&lt;br&gt;• Quiz #12&lt;br&gt;• Bonus: Paired T-test in Software&lt;br&gt;• Course Project STEP 4</td>
<td>4/13</td>
<td>4/15</td>
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<tr>
<td></td>
<td>Due 10:00pm&lt;br&gt;• Bonus: Paired T-test in Software</td>
<td></td>
<td>Due 10:00pm&lt;br&gt;• Quiz #12 – Unit 4B – Case CC &amp; QQ</td>
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<tr>
<td>Week 16</td>
<td><strong>Review</strong>&lt;br&gt;• Quiz #13&lt;br&gt;• Quiz #14&lt;br&gt;• Course Project STEP 4&lt;br&gt;• Assignment #7</td>
<td>4/20</td>
<td>4/22</td>
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<td>Due 10:00pm&lt;br&gt;• Course Project STEP 4</td>
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<td>Week 17</td>
<td><strong>Final Exam Week</strong>&lt;br&gt;• Quiz #13&lt;br&gt;• Quiz #14&lt;br&gt;• Assignment #7</td>
<td>4/27</td>
<td>4/29</td>
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<td>Due 10:00pm&lt;br&gt;• Assignment #7 – End of Semester Self-Assessment&lt;br&gt;Note: Assignment #7 opens 4/21 or by request for students who have completed all except Q13 and Q14</td>
<td></td>
<td>Due 10:00pm&lt;br&gt;• Quiz #13 – Review Units 1-3&lt;br&gt;• Quiz #14 – Review Units 4&lt;br&gt;Note: Above quizzes open 4/16 or by request if completed Quizzes 1-12</td>
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