University of Florida

College of Public Health and Health Professions Syllabus PHC 6050: Statistical Methods for the Health Sciences I (3 Credits, Fall 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/

Note: It is important to review the home page in CANVAS each week and read all announcements carefully.

STARTING THIS COURSE: Read this syllabus. Review the E-Learning homepage and weekly schedule. 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:Robert ParkerOffice:CTRB 5219Phone Number:352-294-5906Email:rlp176@ufl.eduOffice Hours:W 3-3:50pm via ZOOM

or by appointment

PREFERRED COURSE COMMUNICATIONS:

- Ask questions during office hours pertaining to assignments, worksheets, and lecture notes.
- 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.

TEACHING ASSISTANT: Julia Shapiro (Julia.shapiro@ufl.edu)

COURSE MATERIALS: All course materials are available online either through CANVAS or in the online open access textbook and course materials. You will also need access to the statistical software package, SPSS. There is no required textbook to purchase for this course.

Open Access Course Materials: http://bolt.mph.ufl.edu

CANVAS: http://elearning.ufl.edu

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

Statistical Software Package: SPSS 20 (or higher) 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: https://software.ufl.edu/student-agreements/. Click on **SPSS for Windows** for SPSS program purchase information and online documents. The most current version is SPSS 24.

SPSS is available for OSX but may require additional time for the OSX media to be created. Please let the Help Desk know if you require additional media for a non-Windows install.

SPSS is also available, along with other applications such as Microsoft Office, on the free APPS server, https://info.apps.ufl.edu. This may be the best option for MAC users. 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 found it glitchy and slow and do not recommend this as the best option, but it is a free option and many students have been successful at using this system for their assignments in this course. There will likely be a significant increase in time required to use this system compared to the option above.

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.

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/. It is currently the only means to provide this media.

ABOUT THE COURSE

PREREQUISITES AND CO-REQUISITES: There are 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.

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 will be based on one or two samples, and become familiar with categorical data analysis and linear regression. Data analysis will be conducted in SPSS.

COURSE OBJECTIVE AND/OR GOALS: Upon 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.

RELATION TO PROGRAM OUTCOMES: This three credit course is a required core public health course for certain MPH concentrations and covers the following MPH competencies.

- Monitor health status to identify and solve community health problems. (#1)
- Diagnose and investigate health problems and health hazards in the community using ecological framework. (#2)
- Evaluate the effectiveness, accessibility, and quality of personal and population based health services. (#8)
- Conduct research for new insights and innovative solutions to health problems. (#9)
- Communicate effectively with constituencies in oral and written forms. (#10)

DESCRIPTION OF COURSE CONTENT, COURSE MATERIALS, AND TECHNOLOGY

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

COURSE MATERIALS: There is no textbook to purchase for this course. Course materials will be provided in the form of an "online" textbook at http://bolt.mph.ufl.edu. 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. This page can be used to test your system: http://bolt.mph.ufl.edu/2012/11/07/test-your-system/.

It is very important that you 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.

WORKSHEETS: 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. The solutions will be automatically released on Thursday evening prior to the related Quiz deadline.

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.

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/.)

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.

SPSS INFORMATION: If you have questions about SPSS, ask on the discussion board. **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. We offer some advice below and are happy to help you determine the best approach for you.

There are tutorials provided for all skills needed for assignments in this course. 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.

E-LEARNING: An E-Learning site will be available for the course. 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 home page of this site each week and review all announcements carefully. E-Learning is accessible at http://elearning.ufl.edu/ or through my.ufl.edu. You must have a valid Gatorlink ID and password. For assistance, call the UF Help Desk at 352-392-HELP.

NON-SAS TECHNICAL HELP: Information on many common issues can be found in the E-Learning support pages at http://studentlife.online.mph.ufl.edu/e-learning/.

For **technical support for our E-learning in CANVAS site**, activities, and assessments, please contact the Online Course Coordinator at:

Truly Hardemon, MEd

Room Number: HPNP 4173 Phone Number: 352-273-5822 Email Address: hardemont@ufl.edu

Office Hours: 8:00 am to 5:00 pm Monday - Friday

For technical difficulties with E-Learning in general please contact the UF Help Desk at: <u>Learning-support@ufl.edu</u> or (352) 392-HELP – select option 2.

UF BROWSER RECOMMENDATIONS:

https://kb.helpdesk.ufl.edu/FAQs/SupportedBrowsersForUFWebsites

RESPONSE TIMES: For questions posted Monday-Thursday, I will try my best to respond within 24 hours. For questions posted Friday-Sunday, I will respond Monday or as soon as possible thereafter.

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.

DISCUSSION BOARDS: Reviewing the discussion posts of other students and posting your own can be very helpful.

ACADEMIC REQUIREMENTS AND GRADING

Note: Although you can never be awarded negative points for an assignment, if you do not follow the directions given in this syllabus and in the actual assignment, additional points can be deducted even if the assignment is otherwise correct.

QUIZZES: There will be untimed quizzes in CANVAS due each Wednesday by 10pm covering the material assigned for the review 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.

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.

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. There is feedback available in the quiz review which can help direct you to the 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 Monday 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.

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.

Note: All assignments must be submitted via E-Learning by the exact due date and time.

GRADING:

Requirement	% of final grade
Quizzes (15 – 2% each)	30%
Assignments (7)	40%
Software for Assignments	5%
Software for Course Project (STEP 1,2,3)	10%
Course Project STEP 4	15%

Final Average	94-100	90-93	85-89	80-84	77-79	74-76	70-73	67-69	64-66	60-63	57-59	<57
Letter Grade	Α	A-	B+	В	B-	C+	С	C-	D+	D	D-	Е
GPA	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0

Please be aware that a C- is not an acceptable grade for graduate students. A grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

GRADE RESPONSE TIMES: The time to receive your grade on assignments will vary depending on the type and length of the assignment. The instructor and TAs will always strive to return your graded work as soon as possible.

MAKE-UP POLICY: Students are allowed to make up work 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. Work missed for any other reason will receive a grade of zero. Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from e-learning support when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

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.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

COMMUNICATION GUIDELINES: Questions about course material should be asked in class 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.

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/.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy: http://facstaff.phhp.ufl.edu/services/resourceguide/getstarted.htm

Online Synchronous Sessions:

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

ACADEMIC INTEGRITY: Students are expected to act in accordance with the UF policy on academic integrity. As a student at UF, 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 UF. The following pledge is either required or implied on all work:

"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 UF policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at UF will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information on the student honor code see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/.

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

ADVICE FROM DR. PARKER

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 home 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 SAS 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 trach 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: If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office http://www.dso.ufl.edu within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities

should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Students in UF Health Sciences programs should be mindful that unique course accommodations may not be applicable in a clinical, fieldwork or practicum setting. Thus, planning a semester in advance with the DRC Health Sciences Learning Specialist, Lisa Diekow ldiekow@ufsa.ufl.edu, is highly encouraged.

COUNSELING AND STUDENT HEALTH: Your well-being is important to the University of Florida. **The U Matter, We Care initiative** is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need.

If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

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. Online 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

BUT – 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 more details, see the weekly schedule in E-learning

Content to Review	Major Upcoming Activities and Assignments (See E-learning Home Page for More Details)	Monday	Wednesday
Week 1		8/31	9/2
Introduction, Preliminaries, and EDA for One Variable	 Worksheet #1 – Variables Assignment #1 Part B – Self Assessment Syllabus Quiz Quiz #1 Quiz #2 Assignment #2 		
Week 2		9/7	9/9
EDA for Two Variables	 Worksheet #1 – Variables Quiz #2 Quiz #3 Assignment #2 	Holiday Labor Day Due 9/8 10:00pm (due to holiday)	Due 10:00pm • Syllabus Quiz in Assessments • Quiz #1 - Preliminaries
	DUE BY END OF THIS WEEK: • Software Working!!! 6050 = SPSS	Assignment #1 Part B – Self Assessment	 Quiz #2 – Unit 1 (Part 1 – Through "Normal Shape")
Week 3		9/14	9/16
Remainder of Unit 1, All of Unit 2	 Worksheet #1 – Variables Quiz #3 Quiz #4 Assignment #2 Assignment #3 	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)

Content to Review	Major Upcoming Activities and Assignments (See E-learning Home Page for More Details)	Monday	Wednesday
Week 4		9/21	9/23
Unit 3A	 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
Week 5		9/28	9/29
Unit 3B – Discrete RVs	 Worksheet #3 – Discrete RVs Quiz #5 Quiz #6 Assignment #3 Assignment #4 Course Project STEP 1 	Due 10:00pm • Assignment #3 Part A – Case CC and CQ (Software)	Due 10:00pm • Quiz #5 – Unit 3A - Probability
Week 6		10/5	10/6
Unit 3B — Continuous RVs	 Worksheet #4 – Continuous RVs Quiz #6 Quiz #7 Assignment #3B Assignment #4 Assignment #5 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 7		10/12	10/14
Sampling Distributions	 Quiz #7 Quiz #8 Assignment #5 Course Project STEP 1 	Due 10:00pm • Assignment # 5 Part A – EDA for Two Variables (Software) • Course Project STEP 1	Due 10:00pm • Quiz #7 – Unit 3B – Continuous RVs

Content to Review	Major Upcoming Activities and Assignments (See E-learning Home Page for More Details)	Monday	Wednesday
Week 8		10/19	10/21
Unit 4A – Estimation	 Worksheet #5 – Estimation Quiz #8 Quiz #9 Assignment #5B Course Project STEP 2 Assignment #6 	Due 10:00pm • Assignment #5 Part B – EDA for Two Variables (Written)	Due 10:00pm • Quiz #8 – Unit 3B – Sampling Distributions
Week 9		10/26	10/28
Unit 4A – Hypothesis Testing	 Worksheet #6– Hypothesis Testing Quiz #10 Course Project STEP 2 Assignment #6 	Due 10:00pm • Course Project STEP 2	Due 10:00pm • Quiz #9 – Unit 4A – Estimation
Week 10		11/2	11/4
Unit 4A – Hypothesis Testing	 Quiz #10 Quiz #11 Course Project STEP 3 Assignment #6 		
Week 11		11/9	11/11
Unit 4B Concepts	 Quiz #11 Quiz #12 Course Project STEP 3 Assignment # 6 	Due 10:00pm • Assignment #6 – Examples from Literature	Holiday Due 11/12 (due to holiday) 10:00pm • Quiz #10 – Unit 4A – Hypothesis Testing

Content to Review	Major Upcoming Activities and Assignments (See E-learning Home Page for More Details)	Monday	Wednesday
Week 12		11/16	11/18
Unit 4B Concepts	 Quiz #11 Quiz #12 Course Project STEP 3 Bonus: Paired T-test in Software 	Due 10:00pm • Course Project STEP 3	
Week 13		11/23	11/25
Unit 4B Concepts	 Quiz #11 Quiz #12 Course Project STEP 4 Bonus: Paired T-test in Software 	Due 10:00pm • Bonus: Paired T-test in Software	Holiday: Thanksgiving
Week 14		11/30	12/2
Unit 4B Concepts	 Quiz #11 Quiz #12 Quiz #13 Quiz #14 Course Project STEP 4 Assignment #7 		Due 10:00pm • Quiz #11 – Unit 4B – Case CQ • Quiz #12 – Unit 4B – Case CC & QQ
Week 15		12/7	12/9
Review	Assignment #7Quiz #13Quiz #14	Due 10:00pm Course Project STEP 4	
Week 16		12/14	12/16
Final Exam Week	Assignment #7Quiz #13Quiz #14	Due 10:00pm • Assignment #7 – End of Semester Self-Assessment (opens 4/24 or by request for students with all except Q13 and Q14)	Due 10:00pm • Quiz #13 – Review Units 1-3B • Quiz #14 – Units 4A and 4B Note: Above quizzes open 12/2 or by request if completed Quizzes 1-12