University of Florida College of Public Health & Health Professions  
PHC 6050 ONLINE: Statistical Methods for the Health Sciences I (Spring 2014)  

Instructor Information:  
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Teaching Assistants: (email via Sakai): Suwa Xu and Qi An  
Note: When emailing the instructor or TAs, ALWAYS check the box “send a copy to the recipients email.”  

Online Administrator: Ms. Susan White  
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Course Materials: Course materials will be provided in the form of an “online” textbook. Students are expected to work through the material as scheduled. There is no textbook to purchase for this course. This page can be used to test your system: http://bolt.mph.ufl.edu/2012/11/07/test-your-system/.  

Flash: Many components of the course content require Flash and/or Java. Be sure to enable Flash in your browser and upgrade if needed (Flash: http://www.adobe.com/software/flash/about/ and Java: http://www.java.com/en/download/index.jsp)  

Textbook Site: (http://bolt.mph.ufl.edu) The material provided on this site under PHC 6050/6052 will be the primary instruction in the course. It is very important that you go through all content contained on this site as directed by the Weekly Schedule. Alternatively, there is a printable workbook (PDF) which contains all text/images and links to all online-only content. See the Sakai Home Page or Weekly Schedule for direct links to the content for each week.  

Note that the inline quizzes in the online textbook (Learn by Doing, Did I Get This) do not send results to us. If you wish to save your answers for future reference, keep your own record of this information. Depending on your browser settings, answers may be stored in the quizzes between site visits. These quizzes can be reviewed or reset.  

These materials are still under development. We ask for your help in finding errors and providing feedback. We will provide the best possible materials given the time involved, all we can ask is that you do the best you can to learn the concepts presented given the materials provided.  

E-Learning/Sakai: http://lss.at.ufl.edu – login to Sakai (the UF e-learning course management system), PHC 6050 will be one of your courses. The Weekly Schedule and all course materials are available online through this site. Grades, discussion boards, and other information will also be available in the E-Learning system. You must have a valid Gatorlink ID and password. For assistance, call the UF Help Desk at 392-HELP  

Some Known Sakai Issues:  
• Do NOT paste from WORD or other Rich Text Formats unless you  
  o use the Word Paste Tool (for more information see the Student Help FAQ link in Sakai) OR  
  o paste text into Notepad (not Wordpad) or paste special in a word processing program to clear all formatting  
• Browser recommendations  
  https://wiki.helpdesk.ufl.edu/FAQs/SupportedBrowsersForUFWebsites#elearning
**Starting the Course:** Read this syllabus. Review the E-Learning home page and weekly schedule. You must take the “Syllabus quiz” and earn a score of 100% in order to start the course. This quiz is located in the Exams and Quizzes tool. The quiz is based on information in this syllabus and may be taken as many times as needed to earn 100%. This quiz is required and will be counted as part of your quiz grade. Additional guidance for getting started is provided in the E-learning site in Sakai.

**Software:** We are using Statistical Package for the Social Sciences, SPSS 21, in this course (version 19 or 20 would also suffice). You will need to obtain this software by the end of the first week of classes. Becoming familiar with a statistical package is an important part of your statistical education.

Note: The course materials discuss a few software packages. **In PHC 6050 you are only responsible for SPSS.**

The version available at the UF bookstore should be the one mentioned here: https://software.ufl.edu/agreements/spss/student/

- You must obtain either the STANDARD GRADUATE PACK (GRADPACK) or PREMIUM GRADUATE PACK. The BASE or other student versions may not have enough functionality for this course.
- IF YOU ARE OFF CAMPUS, you will need to lease this software from www.onthehub.com or www.creationengine.com or similar online store. If you are an international student, you may also have some issues with delivery, please do not wait to begin this process!
- IF YOU ARE ON UF’s MAIN CAMPUS: The IBM® SPSS® Statistics Premium educational package can be purchased through the UF Computing Help Desk located at the 132 HUB Stadium Road, Gainesville, Florida 32611. (This version may not be labeled as GradPack but is sufficient for this course.)

Other computing requirements can be found at [http://publichealth.phhp.ufl.edu/online-computer-requirements/](http://publichealth.phhp.ufl.edu/online-computer-requirements/)

In addition to SPSS, you might find Open Office ([http://www.openoffice.org/](http://www.openoffice.org/)) or CutePDF ([http://www.cutepdf.com/Products/CutePDF/reader.asp](http://www.cutepdf.com/Products/CutePDF/reader.asp)) useful for this course. Open Office is a free “Office” suite of programs (like Microsoft Office) which can edit Word and Excel documents and convert output to PDF files. CutePDF is a free “printer” which converts any document you can print into a pdf file. If installed, you can choose “CutePDF” in the printer list when you print a document.


**Course Overview:** Statistical methods for description and analysis provide investigators with useful tools for making sense from data. The pervasiveness of statistics in public health as well as other fields has led to increased recognition that statistical literacy—a 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 a 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.

**MPH Core Competencies Addressed by this Course:** Five of the competencies listed in the 2013-2014 MPH Student Handbook are addressed by this course; these are listed below by their item number in the handbook:

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community using an ecological framework
8. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
9. Conduct research for new insights and innovative solutions to health problems
10. Communicate effectively with constituencies in oral and written forms
**Course Objectives:** Upon completion of this course, students will be able to

- **CO-1:** Describe the roles biostatistics serves in the discipline of public health.
- **CO-2:** Describe the strengths and limitations of randomized designed experiments and observational studies.
- **CO-3:** Distinguish among different measurement scales and choose appropriate statistical methods based on these distinctions.
- **CO-4:** Apply common descriptive and inferential statistical methods to analyze public health data 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.

**Communication Methods and Getting Help:** Email or phone communication should be used only for personal matters which cannot be shared with your classmates (i.e. student grades, personal situations, issues with specific exam or quiz questions). If you have a question regarding the course material or course assignments, you will post your question on the appropriate discussion board.

Please do NOT post questions on the discussion boards of a personal nature or dealing with your specific exam questions, quiz questions, or grade(s) in the course. We never discuss a student’s progress, grades or personal situations in any open forum. These situations would require an email or phone call to the instructor.

**Announcements:** Class Announcements will be posted in a dedicated discussion board topic. You will receive a notification via email for urgent announcements. These announcements will always be available to review in Sakai and you should check and read this discussion board topic regularly. As a student of the University of Florida, it is very important to check your UFL email address regularly. In this class, you should check this account at least once every few days. An easy way to access your account is at [https://webmail.ufl.edu/](https://webmail.ufl.edu/).

**Discussion Boards:** Discussion boards are the best place to post your questions and comments. Be sure to place your posts in the appropriate discussion board topic. You are also highly encouraged to respond to others posts. Discussion boards are not a graded element of this course, but are used for course questions, material discussions, communication, and problem solving between students, TAs, and the instructor.

The instructor will answer posted questions each weekday morning and afternoon and will strive to answer all questions as quickly as possible.

**Office Hours:** Office hours with the instructor and TAs are available by appointment and will be held via phone, Sakai Chat or Sakai Meetings.

**Technical Help:** On the sign-in site for Sakai, http://lss.at.ufl.edu, there are multiple tutorials and help to aid students in navigating through the Sakai system. In addition, your course will have help tools “Using Sakai”, “Takings Exams”, and “Help”. Please familiarize yourself with the information in each of these help tools.

If you need help logging onto Sakai, password issues, etc., please contact the UF Help Desk at 352-392-HELP(4357) or helpdesk@ufl.edu. If you need technical help in the course, please post your questions in the “Technical Difficulties” discussion board. You may find the answer to your issue from other student postings. This can often be the quickest way to get help.

See the exam section for more information on technical help during your course exams.
**Course Requirements/Evaluation/Grading:** Your grade in this course will be based on assignments, quizzes, and exams. The final average will be based on the following:

- □ Assignments (40%)
- □ Quizzes (20%)
- □ Exam 1 (20%)
- □ Exam 2 (20%)

The grading scale for this course consists of the scale, including minus grades, below. The conversion factors for grade point values assigned to each grade are also included (in parentheses):

- 94% - 100% = A (4.00)
- 90% - 93% = A- (3.67)
- 85% - 89% = B+ (3.33)
- 80% - 84% = B (3.00)
- 77% - 79% = B- (2.67)
- 74% - 76% = C+ (2.33)
- 70% - 73% = C (2.00)
- 67% - 69% = C- (1.67)
- 64% - 66% = D+ (1.33)
- 60% - 63% = D (1.00)
- 57% - 59% = D- (0.67)
- Below 57% = E (0.00)

For more detail on letter grades and university policies related to them, see the Registrar’s Grade Policy regulations at [https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx)

**Components of Assessment Plan:** This section contains important instructions for the graded components of the course.

*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 required quizzes for all course materials as organized in the weekly schedule. You will be allowed unlimited attempts at each quiz before the deadline. The specific questions may change for subsequent attempts. **For fill-in-the-blank questions, be sure to follow all rounding directions carefully.** In the review of quiz attempts, you will only be able to see the correct answer for questions you answered correctly. In the review you will also be directed to the associated content. The due dates for these quizzes are listed in the Weekly Schedule. Quizzes will be due on Wednesdays at 11:55 PM per the weekly schedule.

**Assignments:** The assignments in this course may consist of data analysis in our software, by-hand calculations when software is not used, and discussion of concepts. All directions will be provided with the assignments. Read and follow all directions carefully. Assignments also use the Exams and Quizzes tool.

**Exams:** There will be two exams for this course each accounting for 20% of your grade. Exams will be administered in Sakai and are proctored by the online proctoring service, ProctorU. Students will be responsible for setting up an account at [www.proctoru.com](http://www.proctoru.com) and scheduling their exam appointments during the dates and times the exam is available. Do not wait until the final two hours scheduled for this exam to start it, as delays will not be an excuse to miss the exam closing date and time. This is YOUR responsibility (not that of ProctorU). The closing time is the time you must FINISH your exam.

The exams are open-book, open-notes. For many students, it is helpful to prepare a one- or two-page “crib sheet” of notes. A calculator is required for the tests; this may be an online calculator. The exams are open for 2 hours and are written to require 1.5 hours of work, allowing time for checking your work and submission. Even though the exam is limited to 2 hours, please allot 3 hours total time to allow for any technical connection issues with ProctorU.

If you have any difficulty, contact the UF Help Desk immediately at 352-392-HELP; write down your ticket number.

Updated: January 6, 2014
This course will be utilizing the services of ProctorU as proctoring service for the exams in this course. This service is a user-friendly system, but you must follow these guidelines to register and take your exams:

1. Students must register for a time slot for their course exams with ProctorU starting the second week of the semester, but no later than 3 days prior to an exam. You will register for your exams at http://www.proctoru.com. Their website will describe how you register and log on for your exam. Your exams will be taken in your Sakai course, but only ProctorU will be able to open the exam for you.

2. Exams will be administered 9:00AM–midnight (Eastern time), seven days a week. ProctorU is now allowing students to take exams after midnight, but it is strongly suggested that you schedule your exam before midnight (Eastern time) as program technical assistance can only be guaranteed up to midnight.

3. Students will need to have a microphone and webcam in place during the test-taking period. An inexpensive webcam and mic will work fine. ProctorU recommends the Microsoft LifeCam VX-5000 webcam, but most brands or models will work. This webcam, as well as many newer webcams, comes complete with a microphone in the camera. Students will NOT be allowed to take an exam without a webcam. (Note: a microphone and webcam are program requirements for our online programs, see computer requirements on our program website.) Please test your microphone and camera with someone else before the exam appointment – Skype is a great tool to make this test. Not having a working camera or microphone will not excuse students from their exam time.

4. Exams may be taken at a student’s home, but students must plan to take their exams in an environment where other people are not in the room with the student during the exam.

5. Students will need to have some administrative rights on the computer they are using for the exam to enable the proctoring service to function.

6. If you schedule your exam more than three days ahead, the College will prepay student proctoring fees. However, if your desired time is within 3 days of your request to ProctorU, they will charge a $5 additional fee, which will be the responsibility of the student. Be prepared to provide a credit or debit card in US$ for this late fee.

**Policy Related to Make-up Exams or Other Work:** Students are allowed to make up work ONLY as the result of illness or other unanticipated circumstances warranting a medical excuse and resulting in the student missing a homework or project 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.

**Attendance Policy:** 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 tests have scheduled deadlines.

**Statement of University’s Honesty Policy:** At the University of Florida, each student is bound by the academic honesty guidelines of the University and the student conduct code printed in the Student Guide and on the University website. The Honor Code states: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior. Students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or this web site for more details: http://www.dso.ufl.edu/sccr/).
My personal expectations and comments regarding academic integrity: Students will often be encouraged to discuss the material with other members of the class on homework and other assignments. I believe we learn best when individual learning and group cooperation are present. However, I expect that no student will ever do any of the following:

- Have another person complete any assignment in this course
- Copy another student’s work on any assignment in this course
- Use materials provided by a previous student in the course for any purpose. Do not seek to obtain or accept offers of such materials (delete any materials you obtained prior to the beginning of the course)

I want to stress that in this class, if you focus on learning the material and worry less about the grade you will receive, you will be rewarded with knowledge that will be much more useful to you in the future than the grade received in this class.

Policy Related to Make-up Exams or Other Work: Students are allowed to make up work ONLY as the result of illness or other unanticipated circumstances warranting a medical excuse and resulting in the student missing a homework or project 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.

Accommodations for Students with Disabilities: If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office (http://www.dso.ufl.edu/). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health: Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575 or visit their web site for more information: http://www.counseling.ufl.edu/cwc/.

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, including primary care, women's health care, immunizations, mental health care, and pharmacy 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: http://shcc.ufl.edu/

Crisis intervention is always available 24/7 from Alachua County Crisis Center: (352) 264-6789.

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.
Schedule: Adjustments to this schedule are possible during the semester. The instructor will strive to be informative and fair regarding any changes. Assignment due dates will be provided as soon as possible.

Course Calendar:

Week 1 (January 6 - January 12)
- Read Syllabus Carefully and Score 100% on Syllabus Quiz (Due 1/13/14 11:55 PM)
- Obtain and Install SPSS Software
- Introduction to Online Textbook Site and Preliminaries
- Unit 1: Exploratory Data Analysis (Part 1) – Examining Distributions

Week 2 (January 13 - January 19)
- DUE 1/13/2014 11:55 PM: Syllabus Quiz – Must Score 100%
- DUE 1/13/2014 11:55 PM: Assignment #1 – Self-Assessment and Skills Test
- DUE 1/15/2014 11:55 PM: Quiz #1 – Unit 1 (Part 1)
- Unit 1: Exploratory Data Analysis (Part 2) – Examining Relationships
- Unit 1: Summary

Week 3 (January 20 - January 26)
- DUE 1/22/2014 11:55 PM: Quiz #2 – Unit 1 (Part 2)
- Unit 2: Producing Data

Week 4 (January 27 - February 2)
- DUE 1/29/2014 11:55 PM: Quiz #3 – Unit 2
- Unit 3A: Probability

Week 5 (February 3 - February 9)
- DUE 2/5/2014 11:55 PM: Quiz #4 – Unit 3A
- Unit 3B: Random Variables (Part 1)

Week 6 (February 10 - February 16)
- DUE 2/10/2014 11:55 PM: Assignment #2 – Exploratory Data Analysis in Software
- DUE 2/12/2014 11:55 PM: Quiz #5 – Unit 3B (Part 1)
- Review for Exam 1
- Exam 1 Opens: February 14th 9:00am

Week 7 (February 17 - February 23)
- EXAM 1 – Units 1, 2, 3A, and 3B-Part1
- Opens: February 14th at 9:00am
- Closes: February 23rd at 11:55pm
  NOTE: Program Technical Assistance only available 9am–midnight Eastern time

Week 8 (February 24 - March 2)
- Unit 3B: Random Variables (Part 2) – Sampling Distributions

Week 9 (March 3 - March 9): SPRING BREAK! No Lectures or Assignments
Week 10 (March 10 - March 16)
   DUE 3/12/2014 11:55 PM: Quiz #6– Unit 3B (Part 2)
   • Unit 4A: Introduction to Statistical Inference (Part 1)

Week 11 (March 17 - March 23)
   DUE 3/19/2014 11:55 PM: Quiz #7– Unit 4A (Part 1)
   • Unit 4A: Introduction to Statistical Inference (Part 2)

Week 12 (March 24 - March 30)
   DUE 3/26/2014 11:55 PM: Quiz #8– Unit 4A (Part 2)
   • Unit 4B: Inference for Relationships – Case C->Q

Week 13 (March 31 - April 6)
   DUE 4/2/2014 11:55 PM: Assignment #3 – Sampling Distributions and Statistical Inference
   • Unit 4B: Inference for Relationships – Case C->C

Week 14 (April 7- April 13)
   • Unit 4B: Inference for Relationships – Case Q->Q

Week 15 (April 14 – April 20)
   DUE 3/16/2014 11:55 PM: Quiz #10– Unit 4B (Part 2)
   • Review for Exam 2

Week 16 (April 21 - April 23)
   Due 4/22/2014 11:55 PM – Assignment #4 – Inference for Relationships in Software
   • Review for Exam 2

Exam 2 (All Units)
   • Opens April 23rd 9:00am, closes April 30th 11:55pm
     NOTE: Program Technical Assistance only available 9am–midnight Eastern time

Final Self-Assessment (May 1)
   Due 5/1/2014 11:55 PM – Assignment #5 – End of Semester Self-Assessment

Note:
In the E-Learning system a cut-off time of 11:55pm means that at 11:55:01pm you are late. Computers are very literal and do not recognize seconds after a given time as “on time.” Please plan your work submissions accordingly and do not wait until this cut-off time.
If you find any information on the course site that is contradictory to this syllabus, please bring it to Susan White’s attention as soon as possible, as this syllabus is the official course outline.