STA2023 Introduction to Statistics (Hybrid)
Spring 2013

Course Description This course introduces the student to the concepts of a statistical design and data analysis with emphasis on introductory descriptive and inferential statistics. Topics include data organization and analysis, probability, discrete and continuous probability distributions, sampling distributions, confidence intervals, hypothesis testing, correlation and simple linear regression. Prerequisites: MAT1033 with a grade of C or better, or the appropriate score on the HCC placement test. College level math skills are required.

Instructor: Jennifer Denson

How to Contact the Instructor:

A. Email: jdenson3@hccfl.edu (This is the best way to reach me between class periods).
   1. Please try to find the answers to informational questions on the class website BEFORE sending an email to me. There is a frequently asked questions link that you will find helpful.
   2. Please include your name, your student ID, the class that you are enrolled in, and the question that you need answered in all emails.
   3. Emails missing your name or the class you are enrolled in may not be answered.
   4. Always email through your Hawknet account. Emails sent through a personal email account will not be responded to.
   5. Emails containing profanity, hostile, or insulting language will not be answered. Subsequent emails will be immediately spammed.

B. Come to my Office: BTECH 112
   Office Hours: TR 9:30-10:45am; MTWR 12:15-1pm; W 2:15-2:45pm; online

How the Instructor will Communicate with the Student:

A. Under extreme conditions, a mass email may be sent to the class through Hawknet. The instructor does not have a list of your Yahoo or Gmail accounts, so do not expect mass emails to these accounts. CHECK YOUR HAWKNET EMAIL ACCOUNT FREQUENTLY.

B. The most common form of communication will be through the course website. http://www.hccfl.edu/faculty-info/jdenson3/sta2023-hybrid.aspx PROCRASTINATION TO VISIT THE COURSE WEBSITE MAY RESULT IN MISSED OPPORTUNITIES.

Class Schedule:

<table>
<thead>
<tr>
<th>Section</th>
<th>Day/Time</th>
<th>Location</th>
<th>Course Compass Course ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>40395</td>
<td>W 1:00-2:15pm</td>
<td>BACA107A</td>
<td>denson44712</td>
</tr>
</tbody>
</table>

ACADEMIC SUCCESS CENTER (FREE TUTORING): The Math Lab is located in BLRC 200. The Math Lab phone number is 253 – 7839. All tutoring services are free to HCC students! The Math Lab will be open to all students on a walk-in basis; bring your class notes with you when requesting assistance.
THIS IS A HYBRID COURSE:

- We will be meeting once a week physically in a classroom and remainder of the week you are responsible for reading materials, video lectures, and completing graded assignments. Taking this course partially online can make it much more difficult to stay on top of the material.

- Students who do well in hybrid courses KEEP UP with the material. It is IMPERATIVE that you remain organized and complete work on time. **You will need to have strong independent study and comprehensive reading skills, as well as the ability (self-motivation) to adhere to the course schedule with a minimal amount of adult supervision.**

- **Students will need the self-assessment and communication skills necessary to identify content areas they need help with and to contact the instructor for appropriate assistance.**

- Prior to attending class, students are expected to: read course material carefully and reflectively, view the corresponding lecture, complete attempt one of the homework and maybe even attempt the quiz.

- **It is expected that students will complete assignments PRIOR to the scheduled due dates.** Students are responsible for all content in reading and additional assignments including those which are not discussed in the provided lecture.

- Please plan to spend at least 10 hours per week outside of class on the course. Plan your schedule accordingly!

- You will need internet access. **Connectivity is the sole responsibility of the student.**

- **Students are strongly encouraged to HAVE A BACKUP PLAN in case of failure of their primary computer.** Computers are available for use on campus and at public libraries. Most students have friends or relatives with computers that can be used in an emergency. Students should not wait until the last possible moment to complete online assignments. If any student has any difficulty with his or her home computer, he or she may go to any Brandon Campus computer lab, the Math Lab (BLRC 200) or Student Success Center (BACA 207) and use the school computers.
Materials you will need:

1. **Calculator**: A calculator is essential. A TI-84 or TI-83 is particularly useful. No symbolic calculators, such as the TI-89, TI-89+, TI-92, HP48, or TI-Inspire. If you choose a cheaper calculator, look for one with a data key. I will only provide supplemental assistance for the TI-83 and TI-84 calculators. We will be using a graphing calculator for most topics covered. It is extremely important that you get comfortable using the calculator at the beginning of class. If you are trying to do calculations by hand all semester, you will run out of time on quizzes and tests.


   Please note: You can buy the textbook + MML Access Kit or only the MML Access Kit. This is because the Access Kit comes with an electronic textbook (ebook). The Access Kit comes with an access code that you will need to register for our class when you visit [www.coursecompass.com](http://www.coursecompass.com). You can also purchase the access code online.

3. **Course Compass (MML)**

   You have three options for purchasing MML:

   - **Option 1**: Buy MML at the bookstore (purchases electronic textbook, no hard copy)
     Visit [www.coursecompass.com](http://www.coursecompass.com)
     Click Register as a student
     Type in your course ID: see page 1 of syllabus.
     You will also be asked to set up a username and password at some point.

   - **Option 2**: Buy MML+textbook at the bookstore (purchases electronic and hardcopy textbook)
     Visit [www.coursecompass.com](http://www.coursecompass.com)
     Click Register as a student
     Type in your course ID: see page 1 of syllabus.
     You will also be asked to set up a username and password at some point.

   - **Option 3**: Buy MML online (purchases electronic textbook, no hardcopy)
     Visit [www.coursecompass.com](http://www.coursecompass.com)
     Click Register as a student
     Type in your course ID: see page 1 of syllabus.
     Choose the option to buy MML online. (This purchases the Access Code online).
     You will also be asked to set up a username and password at some point.
     You will be asked to enter credit card information.

Please note, if you are short on funds, you may still register for MML with a grace period before paying.
Presentation of course material will be delivered through:

1. **Class Website:** [http://www.hccfl.edu/faculty-info/jdenson3/sta2023-hybrid.aspx](http://www.hccfl.edu/faculty-info/jdenson3/sta2023-hybrid.aspx)

   This site contains the course schedule, announcements, course syllabus, and weekly reading assignments.

   You are required to access online material at this website. It is your responsibility to be checking the class website. Each week, you must complete a reading assignment posted on the course website. **It will be the student’s responsibility to complete the weekly readings. The instructor can not monitor who views the reading. It is strongly recommended that you read the material to keep up with class work and class discussions.**

   By the beginning of each week, a brief summary of the week’s topics and assignments will be posted for you as a weekly schedule. Please start your week off by reading these weekly postings. The instructor will be reminding you of upcoming due dates in these postings. This is a great way to keep track of what’s due in each upcoming week.

2. **My Math Lab (MML/Course Compass):** [http://www.coursecompass.com](http://www.coursecompass.com)

   This site contains course homework, course quizzes, and video lectures.

   You are required to access online material at this website. It is your responsibility to be logging into MML and following along with the assignment schedule.

   Each week, you will be assigned a lecture video, and homework problems to complete in MML.

   See the syllabus category “Materials you will need” for purchasing MML.

   I highly recommend you use **MOZILLA FIREFOX** when logging into MML.

3. **Class Lecture**

   Attendance at class sessions is required. Some classes will be pure lecture; other classes will be used to answer questions, clarify difficult or confusing material, or testing.

### Grading System:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams 1-4</td>
<td>50%</td>
<td>A</td>
<td>100-90%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>10%</td>
<td>B</td>
<td>80-89%</td>
</tr>
<tr>
<td>2 Highest Online Quizzes</td>
<td>10%</td>
<td>C</td>
<td>70-79%</td>
</tr>
<tr>
<td>2 Highest Class Quizzes</td>
<td>10%</td>
<td>D</td>
<td>60-69%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
<td>F</td>
<td>0-59%</td>
</tr>
</tbody>
</table>

**Last day to drop/add:** January 11  
**Last day to withdraw:** March 20
Grade Components:

1. **Exams. There will be no makeup exams.**
   There will be four in-class exams. The average of the four in class exam grades is 50% of your final grade in the course. If you miss a test, the grade for that test could be replaced by the grade from your final exam. If you take all the tests and score higher on the final exam than your lowest test score, the final exam grade will replace your lowest test score if you are eligible. More than one test missed will mean a zero on that test. In class after completing the exam, the exams will be returned to the student, discussed, and collected. Students do not keep their exams, but may further review their exam during office hours.

2. **Final Exam.** The final is 10% of your final grade in the course. The final exam is cumulative and in-class on **May 1 from 12:30-2:20pm**. Students are required to attend the cumulative final exam. The final is multiple choice – you will need scantron #882-E.

3. **In Class Pop Quizzes. There will be no makeup quizzes.**
   There will be three in class pop-quizzes The average of the two highest quiz grades will be 10% of your overall grade. The lowest quiz grade will be dropped, so that you can miss one quiz without affecting your grade. In class after completing the quiz, the quizzes will be returned to the student, discussed, and collected. Students do not keep their quizzes, but may further review their exam during office hours.

4. **Online Quizzes. There will be no makeup quizzes.**
   There will be three online quizzes, given online through My Math Lab. The average of your two highest quizzes will be 10% of your overall grade. The lowest quiz grade will be dropped, so that you can miss one quiz without affecting your grade.

   You must submit the quiz once you have started it. Once you are in a quiz, the following actions will end your attempt to complete the quiz and a zero will be issued for that quiz:
   a. x out of the quiz
   b. Close the quiz and come back later.
   c. Open a new browser window on the same computer while the quiz is running
   d. Walk away for an extended amount of time and begin it later.

   If you do not click submit on a quiz, you will be locked out of the quiz and all future assignments. If you become locked out of quizzes/hw you must email me. Lockouts after quiz 1 will result in automatic zeros.

5. **Homework. There will be no makeup homework.**
   Homework assignments consisting of video lectures and practice problems will be assigned online through My Math Lab. The average of your homework grades will be 20% of your final grade in the class. It is very important that students register themselves in their MML program within the first 2 days of class. You can work on the homework as many times as you like before the due date. You will get three attempts at each question before MML marks the question incorrect. When that happens, you may choose “similar problem” and you will be given a new problem to try. Before attempting MML homework, you will want to read the assigned reading and watch the lecture video.

   If you do not click on a course compass assignment before the due date has passed, then you can not open the assignment after the due date. Assignments will not be opened for students to view after due dates have passed.
Course Policies:

1. *There will be no makeup exams, quizzes, or homework.

2. *There will be no extension of due dates on exams, quizzes, or homework for individual students. All assignments must be completed by the due date. Once the due date has passed, the assignment can not be completed for credit.

3. *There is a seven day window in which the student has the opportunity to submit graded online assignments. Therefore, students cannot make up missed assignments. The seven day submission window represents a six day assignment availability period with an extra day added to cover for computer, MML, and myHCC issues that may occur during the first nine days of availability. *Connectivity, other computer type issues, personal issues, or any other issues that occur within the final (7th) day of online assignment availability are not valid reasons for a “reset” or deadline extension.* Students who wait until the final (7th) day to submit assignments risk a grade of zero points for said assignments should they encounter difficulties in submitting them.

4. The only possible extra credit points are the bonus question on the exams. THERE ARE NO ADDITIONAL EXTRA CREDIT OPPORTUNITIES IN THIS CLASS. Emails requesting extra credit opportunities WILL NOT be answered.

5. Bring a calculator and writing utensil to each exam.

6. **ALL WORK MUST BE SHOWN ON EACH PROBLEM FOR FULL CREDIT.**
   
   Exact answers must be given for full credit on problems, except when students are instructed to round. This holds for all exams, quizzes, and projects.

7. Students must check their official HCC email address for course announcements. Students must also check the course website for course announcements and course materials.

8. The student must notify the instructor of any incorrectly recorded grades by the end of the student’s final exam. Grade corrections will not made once your final exam is submitted.

9. **The grades posted in MML do not reflect your overall grade in this course, nor do they reflect your correct homework average nor your correct quiz average.**

* These policies hold under all conditions, including but not limited to death, illness, computer issues, error in Course Compass, shut down or failures of Course Compass, compatibility issues with Course Compass, any and all other occurrences…The reason why you are allowed to drop a quiz and multiple attempts per quiz is to account for the above experiences. Same on HW. The reason why the final can replace one test is to account for the above experiences.
College Policies:

1. **ACADEMIC DISHONESTY POLICY:** The Mathematics Department at the Brandon campus follows the zero tolerance policy on cheating as described in the HCC Student Handbook. This includes cheating on any work that contributes to your grade. Students found violating this policy will receive a zero on that assignment that cannot be replaced and may be referred to Student Services for disciplinary actions.

2. **Attendance Policy:** Attendance will be taken every class. Absences in excess of 10% of the total class meetings may result in a failing grade. Also, these absences will result in veterans being reported to the VA. It is extremely important to be on time to class. All early departures should be discussed and cleared with the instructor prior to class. Students are always responsible for letting the instructor know they are present if they arrive in the classroom after the instructor has taken the attendance.

3. **RECORDING OF CLASS SESSIONS:** A student shall not, without my express authorization, make or receive any recording, including but not limited to audio and video recordings, of any class, co-curricular meeting, organizational meeting, or meeting with me. Further, it is not permissible to post my class lectures/course materials on the web.

4. **REQUEST FOR ACCOMMODATIONS:** Any student whose disability falls within the American Disabilities Act (ADA) and requires accommodations should contact the Office of Services for Students with Disabilities. The Brandon office is located in the Student Service Building Room 109. You may also reach the office by phone at (813) 253-7914. Requests for accommodations should be submitted to the instructor within the first two weeks of the course. Tests taken in the testing center must be taken before or during your normal class time.

5. **Religious Observances:** HCC will reasonably accommodate the religious observances, practices, and beliefs of students in its admissions, class attendance, and examination policies and work assignments. Students must notify instructors at least one week prior to a religious observance.

6. **EQUITY/EQUAL ACCESS POLICY:** Hillsborough Community College is an equal access/equal opportunity employer that makes employment and education-related decisions without regard to race, color, gender, religion, national origin, age, disability, sexual orientation, marital status or any other bias that is or may be prohibited by laws. In addition, the college does not discriminate in employment practices or in the admission and treatment of students. HCC is committed to equitable treatment for all students and employees and to a learning and working environment free of discrimination and harassment for current as well as future students and employees. The college provides equal educational opportunities for qualified individuals with disabilities and complies with, as well as, supports the Americans with Disabilities Act. HCC’s Equity Officer ensures compliance with federal and state laws prohibiting discrimination and sexual harassment. Employees and students who believe they have been a victim of discrimination or sexual harassment should contact: Dr. Joan B. Holmes, 813-253-7043, jholmes16@hccfl.edu

7. **Incomplete:** Before an incomplete grade is given, all of the following requirements must be satisfied:
   1. You must have completed more than two-thirds of the course.
   2. You must have a “C” average.
   3. You must provide written documentation justifying the request.

**INCOMPLETE GRADES MUST BE APPROVED BY THE INSTRUCTOR AND CONFIRMED BY THE ACADEMIC DEAN.** Additional information regarding the incomplete policy can be found in the HCC Catalog.
Course Objectives:

1. To understand the fundamental concepts of statistics to include the nature of data and the collection of data through experimental design and sampling techniques.

2. To understand the methods for organizing and describing sets of data by:
   a. constructing and interpreting histograms, bar charts, box plots, and stem and leaf plots from a given data set.
   b. calculating and interpreting the following measures of central tendency, dispersion, and relative standing from a given data set:
      i) Mean, median, mode
      ii) range, standard deviation, variance
      iii) percentiles, quartiles, z-scores

3. To understand and apply the principles of probability by:
   a. constructing sample spaces to find probabilities of events
   b. computing probability using the addition, multiplication, conditional, and complement rules

4. To understand and apply the fundamental concepts of random variables and probability distributions by:
   a. understanding the characteristics of discrete and continuous probability distributions
   b. constructing a probability distribution for a discrete random variable
   c. calculating the probability of an event for a random variable having a normal distribution.
   d. understanding sampling distributions and applying the Central Limit Theorem

5. To understand and apply the fundamental concepts of statistical inference by:
   a. constructing and interpreting confidence intervals for population parameters
   b. performing and interpreting hypothesis tests for population parameters

6. To understand and apply the basic principles of linear correlation and regression by:
   a. constructing and interpreting scatterplots
   b. computing and interpreting the linear correlation coefficient
   c. computing and applying the linear regression equation to make predictions

7. To become familiar with the use of technology such as graphing calculators and statistical software applications as applied to the above objectives.