Bucks County Community College Department of Mathematics, Computer & Information Science

Basic Course Information Fall 2011 Math115 Elementary Statistics

| Instructor: Dr. Elaine Fitt | Email: <u>fitte@bucks.edu</u> |
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| Phone : 215-968-8260 | Office: F123 Office Hours: 11 a.m. – 12 p.m. or any mutually convenient time |
| Text: Math 115 Elementary Statistics, Custom edition based on Elementary Statistics, 5th Edition. Larson and Farber with the access code for Course Compass | Course Compass ID:DL: Math 115.E59fitt3856710 a.m. Math 115.N02fitt73725Be sure to register in the correct section. |
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I. Course Objectives:

- This basic statistics course is designed for business, liberal arts, psychology, pre-allied health, computer science and science majors. The prerequisite for this course is a placement score at level 7 or Intermediate Algebra (Math 103) with a C or better or Mathematical Concepts I (Math 101) with a C or better. This course will introduce the student to the basic concepts of descriptive statistics, probability and the methods of statistical inference. Topics studied include descriptive measures for empirical data, theory of probability, probability distributions, sampling distributions of statistics from large and small samples, estimation theory, hypothesis testing, correlation and regression. A detailed assignment sheet will be distributed.
- It is expected that students will demonstrate both an understanding of the theoretical concepts and the application of these concepts to a variety of applied problems.

II. Official Course Syllabus

- A copy of the official course syllabus can be found at the following URL: <u>http://www.bucks.edu/syllabi/syllabus.php?lookup=MATH115</u>_____
 - A. Planned Sequence of Topics and/or Learning Activities:
 - 1. Descriptive Statistics
 - a. Sampling techniques
 - b. Graphical displays (Histograms, Stem and Leaf displays, Box and Whisker plots and Frequency Polygons)
 - c. Measures of Central Tendency
 - d. Measures of Variation

- e. Measures of Position
- 2. Probability
 - a. Rules of probability
 - b. Discrete and Continuous probability distributions, including Binomial, Normal, Chi-Square, and t-distribution
 - c. Central Limit Theorem
- 3. Inferential Statistics
 - a. Sample size
 - b. Confidence intervals
 - c. Hypothesis testing (one and two samples)
 - d. Chi-Square (test of independence and goodness of fit)
- 4. Regression and Correlation
 - a. Scatter plots
 - b. Least Squares regression equation
 - c. Correlation coefficient

III. Testing and Grading Procedures:

A. Five tests and a final paper will be given at the points in the course indicated on the assignment sheet. **All** tests for section E 59 will be taken online at the Testing Center.

These tests will comprise 50% of your grade. Before each test, try the practice test on CourseCompass so you will know what to expect. Details of the paper can be found in the Course Information section of MML.

- B. In addition there will be 9 online chapter quizzes. These quizzes will comprise 20% of your grade and may be taken at home.
- C. Online homework problems for each assigned section have been assigned in MML. The homework assignments will comprise 30% of your grade.

Grades will be calculated as follows:

| А | 90-100 | С | 70-76 |
|----|--------|----|-------|
| B+ | 87-89 | D+ | 67-69 |
| В | 80-86 | D | 60-66 |
| C+ | 77-79 | F | 0-59 |

D. Students have the right to review and the responsibility to retain a copy of their own work and/or correspondence, including that posted to a web course space. Students are urged to retain all graded work until final grades have been received from the

college. Student access to a BCCC web course space is available only during the stated semester/session as indicated by the College's academic calendar. All web course sites including content are routinely removed from the server at the conclusion of each semester/session.

Please refer to the college catalog for the policy on cheating and plagiarism. The college policy will be strictly enforced.

IV. Study Requirements

This is a 3-credit course. Class attendance is required. Excessive absences can adversely affect your grade. Expect to spend at least two hours of study for each class hour. Study time should be spent

- a) Going over notes from previous class. Taking careful notes is important. Write down concepts or problems that you do not understand during class.
- b) Doing assigned problems. The best way to learn mathematics is to do problems. Suggestion - put an * next to problems which give you trouble and ask about them during the next class, or post them to the discussion board in CourseCompass. Additional practice problems are available through CourseCompass quizzes and homework in each section.

V. eLearning Procedures

- 1. For eLearning students, go through the orientation sent to your Bucks email and provided in MyMathLab under Chapter contents. All procedures for accessing CourseCompass will be covered in detail. You will learn how to access the materials needed to succeed.
- 2. Communication is an essential ingredient for success in this course. Please check in with me at least once a week using email. Please be sure to include your name, class and section in the subject line.
- 3. Tutoring free of charge is available in the Tutoring Center located in Library 121.
- 4. While there is a great deal of flexibility with distance learning mode of learning, it requires a great deal of motivation on the part of the student. Tests and course work can be scheduled at times that are convenient to you, day or evening. However, so that you do not fall behind, it is important to keep as closely to the posted deadlines as possible. Make sure you check the hours of the testing center before you go to take a test. Make-up tests will NOT be given.

VI. Withdrawal:

- A. Check the college catalog for the withdrawal date corresponding to the semester you are enrolled in. The withdraw period for the Fall 2011 semester will end on **Tuesday**, **November 1, 2011.**
- B. Class attendance is a requirement for success in any mathematics class. If you are unable to attend a session due to an emergency or illness, please inform me

beforehand, if possible. Classes will begin promptly and roll will be taken at the beginning of each class.

C. If you stop attending class, OR do not complete the course requirements, and don't withdraw you will receive an F. I will NOT withdraw you from the course.

VII. Disability Accommodations

In compliance with the bucks County Community College policy and equal access laws, appropriate academic accommodations can be made for students eligible for such support. Students are encouraged to register with the Disability Services Office (215 968 8463) to verify their eligibility for appropriate accommodations. Please make any requests for academic accommodations or other concerns as early in the semester as possible.

VIII. **Required Text:** Math 115, Elementary Statistics, Custom Edition based on Elementary Statistics, Picturing the World 5th ed by Larson and Farber. Be sure to buy the text that is packaged free with a CourseCompass access code.

Required calculator: TI-83. TI 83+, TI84, TI84+ or similar.

CourseCompass provides many tools that are designed to help you in the study of statistics. You can download the PowerPoint presentations, access the student study guide, learn how to use your calculator and take practice quizzes.

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| Dr. Fitt | 215 968 8260 | 215 491 5426 |
| Mathematics Office | 215 968 8305 | 215 968 8294 |
| Distance Learning Office | 215 968 8052 | 215 968 8148 |
| Testing Center | 215 504 8594 | |
| Tutoring Center | 215 968 8307 | |
| Registration | 215 968 8100 | |