PREREQUISITES: Completion of DMA 010 – DMA 050, and DRE 098.

COURSE DESCRIPTION: This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students will be able to use data to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life.

This course emphasizes the general education competency QUANTITATIVE REASONING: Students utilize quantitative reasoning skills to make sense of and solve numerical problems. Students demonstrate quantitative reasoning when they:
1. Accurately interpret mathematical data associated with problems
2. Apply appropriate mathematical formulas and operations to solve problems
3. Articulate complete and accurate mathematical solutions and interpretations

UNIT 1: 2A, 3A, 3B, 3E
UNIT 2: 4B, 4C, 4D
UNIT 3a: 7E, 7A, 7B, 7C
UNIT 3b: 5A, 5C, 5D, 5E
UNIT 3c: 6A, 6B, 6C
UNIT 4: 8A, 8B, 9A, 9B

REQUIRED SUPPLEMENTS:
- MyLabsPlus online access code
  - Go to CFCC.MyLabsPlus.com and sign in using your CFCC username and the password, Welcome1. Follow the online instructions.
- Calculator with the capability of performing square roots and factorials. NO CELL PHONES!

ATTENDANCE:
- YOU MUST COMPLETE THE ENROLLMENT VERIFICATION ASSIGNMENT ON BLACKBOARD BEFORE THE CENSUS DATE—JANUARY 18, 2017 at 11:59 PM. Failure to do so will result in being processed as a No-Show and you being withdrawn from the course.
- YOU MUST COME TO CAMPUS TO TAKE THE FINAL EXAM. The Final Exam will be held on MONDAY, MAY 8TH at 2:00 PM in S-604 at the Wilmington campus. If you are out of town and/or unable to attend the Final Exam on this date and time, you must make arrangements by Friday, April 14th to have your test proctored by another educational institution. The proctor form is available on MyLabsPlus.

EMAIL: Check your CFCC email DAILY! I will send out important class information at least once a week. Email is my preferred method of contact. I will always respond within 24 hours upon receipt of your email.
**GRADED WORK:** Each unit will have online homework. There will be four written labs, two online tests and an in-class, proctored Final Exam. **THERE ARE NO MAKEUPS OR EXTENSIONS.** At the end of the semester, I will drop the two (2) lowest homework grades and one (1) lowest lab grade.

**GRADING POLICY:** Homework 35%, Labs 15%, Tests & Final Exam 50%

**GRADING SCALE:** 92 and above: A, 84-91: B, 76-83: C, 68-75: D, 67 and below: F

**ONLINE HOMEWORK:** We will use MyLabsPlus for online homework. You have unlimited attempts at the homework until it is due. Afterwards, you can review it in Student Gradebook.

**LABS:** The labs are posted on MyLabsPlus, along with their due dates. They must be submitted via email (s lsperry338@mail.cfcc.edu). They will NOT be accepted late.

**TESTS:** There will be two online tests. Test #1 will cover units 1, 2. Test #2 will cover unit 3.

**FINAL EXAM:** The Final Exam is cumulative and will cover ALL units. The Final Exam will be held on MONDAY, MAY 8TH at 2:00 PM in S-604 at the Wilmington campus, OR proctored at another educational institution, approved by your instructor. You will need to bring your CFCC student ID card, #2 pencil, and calculator to the Final Exam. You will NOT be able to use your cell phone.

**MATH LAB:** Free tutoring is available at the MATH LAB in S-606. You are encouraged to go to the MATH LAB on a regular basis if you are having difficulty with your course work. You may obtain the hours of operations by visiting the Learning Lab site and clicking on Locations and Hours.

**STUDENT LEARNING OUTCOMES:**
1. Judge the reasonableness of results using estimation, logical processes, and a proper understanding of quantity
2. Utilize proportional reasoning to solve contextual problems and make conversions involving various units of measurement
3. Identify, interpret, and compare linear and exponential rates of growth to make predictions and informed decisions based on data and graphs
4. Differentiate between simple and compound interest and analyze the long-term effects of saving, investing, and borrowing
5. Describe, analyze, and interpret statistical information such as graphs, tables, and summarized data to draw appropriate conclusions when presented with actual statistical studies
6. Determine probabilities and expected values and use them to assess risk and make informed decisions
7. Analyze civic and/or societal issues and critique decisions using relevant mathematics
   *The purpose of problem solving is not merely to obtain an answer, but also to extend and cultivate the ability to think independently and creatively, beyond the mere application of computing rules. During the course, students are encouraged and expected to develop a conceptual grasp of the topics and the ability to move effortlessly between mathematical results and their interpretations.*

**RELIGIOUS OBSERVANCE POLICY:** Effective Fall 2010, students will be allowed two excused absences each academic year for religious observances required by the faith of the student. See the CFCC Catalog and Student Handbook for more information.

**ACADEMIC HONESTY:** The faculty member shall notify the student who has been observed cheating or plagiarizing that he/she will receive a grade of “F” on the assignment or “F” in the course. The faculty member, however, shall afford the student an opportunity to clarify his/her position. If the student accepts a grade of “F” on the assignment, the student may remain in the class.
DISABILITY SERVICES: Any student who requests classroom accommodations because of a disability must present documentation to verify his/her disability. This documentation must be given to the Disabilities Service Coordinator, and should be provided prior to requesting accommodations by the instructor. On a confidential basis, the student, disabilities services and the instructor will determine the appropriate accommodations following documentation. The Disability Support Services Office is located in Union Station, 362-7012 or 362-7158.

DISCLAIMER: Information contained in this syllabus was, to the best knowledge of the instructor, considered correct and complete when distributed for use at the beginning of the semester. The instructor reserves the right, acting within the policies and procedures of Cape Fear Community College, to make changes in course content or instructional techniques without notice or obligation.