



Concurrent Enrollment Course Outline

High School Name: Newfield Senior High School, Newfield, NY

Date Proposal Submitted/Prepared: Friday, June 1, 2012 (rev. Monday, February 2, 2015)

Instructor: Kristopher Williamson

TC3 Course #: Math 200

TC3 Course Title: Statistics

Credit Hours: 3 hours

Student Audience – Grade Level(s): 11th and 12th Grade students

Semester(s) Offered: Spring 2015 Semester

Instructor e-mail and/or phone #: kwilliamson@newfieldschools.org (607) 564-9955 x3210 (school)

Course Description: Math 200 is a college level course which students learn basic statistics. The course has three major parts: Descriptive Statistics, Probability, and Inferential Statistics. Topics within Probability include the counting principle, permutations, combinations, Bernoulli, Venn diagrams, circular permutations, Bayes formula, independent events, expected value, mutually exclusive, addition law, and Bernoulli and the normal distribution. Topics within Descriptive and Inferential Statistics include basic terms, data collection, sampling techniques, the misuses of statistics, summation, measures of central tendency (mean, median, mode), measures of dispersion (range, mean absolute deviation, standard deviation, normal distributions, z-scores, binomial distribution), sample variability (confidence levels, standard error of mean, Central Limit Theorem), statistical inference (hypothesis testing, chi square analysis, T-testing, normal testing, correlation, regression), and data analysis. Additional topics may be covered if time permits.

Course Prerequisites: High School Algebra 2/Trigonometry

Minimal Basic Skills Needed to Complete Course Successfully: Basic background in probability and statistics.

Course Objectives: Master probability and statistics skills at the college level. Develop an organized approach to problem solving. Make connections between probability and statistics.

Required Texts and Materials/Optional Materials as Appropriate: Just the Essentials of Elementary Statistics, by Robert Johnson

Class Modalities/Alternative Learning Strategies: Lecture, discussions, individual practice, use of computer technology.

Required Readings, Presentations, Written Assignments, etc.: Homework, quizzes, tests. Some selected readings from textbook.

Course Content Presented in Units or Segments: Class meets 5 days a week for 43 minute periods. The following topics will generally be covered in order as indicated in the course description above. The course is divided into three parts: Descriptive Statistics, Probability, and Statistical Inferences. At least two readings will be given for each topic (2 for Probability and 3 for Statistics).

Evaluation/Grading System: Homework assignments will be collected periodically, but will not be graded. Grades will consist of quizzes and tests, which will be averaged within each of the three marking periods. The final exam will count as a fourth grade. The overall course grade will be calculated by averaging the three marking periods with the final exam. Final grades will be issued as numbers for high school credit and as letters for college credit.

Statement of Academic Integrity: In addition to TC3's Statement of Academic Integrity below, late work will only be accepted on occasion and by specific deadlines. If a student misses a quiz or test, they are responsible to take the quiz or test within 2 days of their return to school, afterwards the student will earn a zero score.

Tompkins Cortland Community College's Statement of Academic Integrity

Every student at Tompkins Cortland Community College is expected to act in an academically honest fashion in all aspects of his or her academic work: in writing papers and reports, in taking examinations, in performing laboratory experiments and reporting the results, in clinical and cooperative learning experiences, and in attending to paperwork such as registration forms.

Any written work submitted by a student must be his or her own. If the student uses the words or ideas of someone else, he or she must cite the source by such means as a footnote. Our guiding principle is that any honest evaluation of a student's performance must be based on that student's work. Any action taken by a student that would result in misrepresentation of someone else's work or actions as the student's own — such as cheating on a test, submitting for credit a paper written by another person, or forging an advisor's signature — is intellectually dishonest and deserving of censure.

Make-Up Policy/Late Work: Late work will only be accepted on occasion and by specific deadlines, usually within 2 days of the due date. Students are responsible to approach the teacher for any notes and work missed when absent from school.

Attendance Policy: Missing multiple days of class will result in a lower average. Students who miss an excessive amount of school and who do not make the effort to seek missed work could be removed from the class.

Student Responsibilities: Students are responsible for maintaining a neat and organized binder that contains all notes taken in class as well as homework assignments, quizzes, and tests. If students have difficulty with certain topics, they are responsible for seeking extra help outside of class where necessary. Students are responsible for turning in all assignments by the specified due-dates.