



Stat 109 Student Contract

Red Hawk Math Learning Center

Course Title: Stat 109 – Statistics

Course Description

Introduction to the use of statistics in the real world. Topics include: analysis and presentation of data, variability and uncertainty in data, techniques of statistical inference and decision-making. Meets Gen Ed 2002 - Mathematics. Not for majors in Mathematics (MATH), Mathematics with Applied Math concentration (MAAM) or Mathematics-Teacher Education (MTED).

Accessing the Course

- To access the course from outside the lab go to montclair.mylabsplus.com
- To log in use your NetID for your user name and six digit birthdate for your password (mmddy). You can change your password once you log in.
- MyLabsPlus is both PC and Mac compatible and works best with Chrome or Firefox.
- For technical support please visit this link: <https://support.pearson.com/getsupport/s/contactsupport>

Required Course Materials

- **MyLabsPlus Access Code** is: HSEMSA-WHIFF-SAURY-LAMBS-SHAWM-JUTES
- **Scientific Calculator.** Cellphones are prohibited in the center and may not be used as a calculator. Graphing calculators are not allowed on quizzes or tests.
- **Headphones** for use in the Red Hawk Math Learning Center.
- **Notebook** devoted to the course and **pencil/pen.** Paper is only provided during a quiz, test, or final.

Grading

In this course you will be evaluated based on your performance on homework, quizzes, tests, comprehensive final exam, projects, and participation. Zeros will be submitted on all assignments after the due date. Students will not be given an opportunity to make up late assignments.

- **Homework - 15% of your grade.** Homework is completed through MyLabsPlus during lab time and at home. You will need to spend additional time, approximately 3-6 hours a week, outside of scheduled lab time to meet weekly objectives.
- **Quizzes - 15% of your grade.** You will be able to take any quiz up to 2 times, as long as you complete the attempts before the end of your lab time on the due date. Quizzes are timed, closed notes assignments.
- **Participation - 5% of your grade.** Participation grade is based on attendance during your scheduled weekly lab times. Credit will be awarded based on the completion of the check-in and check-out process, but you are expected to actively work on assignments during your lab time. Lack of participation can result in losing attendance credit for the lab period.
- **Focus Group – 5% of your grade.** You will be graded on attendance and participation during each focus group session.
- **Project/Paper – 15% of your grade.** There is one project in this course, divided into two parts. More information about the project will be included in the course material.
- **Unit Tests – 30% of your grade (2 Tests, 15% each).** There are 2 Unit Tests in this course. You are allowed one attempt for each test, which must be completed before the end of your lab time on the due date. Tests are timed, closed notes assignments.
- **Final Exam – 15% of your grade.** The final exam is administered in the RHMLC during your last scheduled lab meeting, but may be taken early if completed before. Only one attempt is allowed. The final is a timed, closed notes assignment.
- **Study Plan – Course Bonus (2%).** Bonus points will be awarded based on completion of 65 mastery points in the study plan.

To pass the course with a C- you must score at least a 70% total average (60% for a D-).

Mathematics Learning Center Policies

General Policies

- Your time in the RHMLC is devoted to your math course work. If caught playing games, sending or reading email, attending to social media sites, or working on other subjects, you will be asked to leave and will not receive attendance credit for your time that day.
- The Red Hawk Mathematics Learning Center is a classroom. As a courtesy to all students, cell phones must be turned off or silenced and put away.
- No visiting with other students is allowed.
- Food and drinks are not allowed.
- See the [RHMLC website](#) for full list of policies.

Testing and Quizzing Policies

- You must provide a picture ID to be permitted to take a quiz or a test.
- Cell phones and smartwatches must be turned off and placed on top of the computer behind your monitor when taking quizzes and tests.
- Additional resources, notes or papers of any kind are not permitted in the testing area. Paper for use while testing and quizzing will be provided by the proctor. All test paper must be turned into the proctor before leaving the testing area, but keep your quiz papers for review.
- You are not permitted to leave the room without speaking to an instructor. If you leave without permission, you will earn a 0 for tests and quizzes.
- **Cheating will result in a 0 on all attempts of the quiz or test.**

Getting Help in the RHMLC

- Help is available whenever the Red Hawk Math Learning Center is open, just ask! As you work in the Center, several math graduate assistants and tutors will be circulating to give assistance when you need it most. In addition, there will always be an instructor in the lab during class times. Simply place the red cup on your computer monitor to get the attention of a tutor. (Please note if you come outside of your class time computers are available on a first come first serve basis and priority will be given to students who are attending their scheduled class time.)
- Free Individual tutoring times are scheduled Monday through Friday in the RHMLC. To see the schedule and register for a tutoring session visit the [RHMLC Tutoring Reservation page](#).

Additional MSU Tutoring Services

- Additional tutoring resources may be found in the [Center for Academic Development and Assessment](#).
- Writing support and resources may be found in the [Center for Writing Excellence](#).

Academic Integrity

You are responsible for your own work. Any attempt to cheat will be a violation of the Code of Conduct and subject to academic penalties. If caught cheating, you will earn a 0 for the assignment and the behavior will be reported to the student conduct office. See the school's [webpage on academic honesty and integrity](#) for further information on penalties for such misconduct. Two violations of the Code of Conduct will result in a failure of the course.

Disabilities Resources

Montclair State University is committed to the full inclusion of students with disabilities in all curricular and co-curricular activities as mandated by Section 504 of the Rehabilitation Act of 1973. The [Disability Resource Center](#) (DRC) will assist students in receiving the accommodations and services necessary to equalize access. Please note due dates are final unless otherwise noted by the instructor. For further information and assistance, contact the Disability Resource Center in Webster Hall (973-655-5431).

Counseling and Psychological Services (CAPS)

In addition to the above services, Montclair State is committed to the emotional well-being of the student body. For those suffering from emotional and psychological stresses (depression/testing anxiety/other) please visit the [CAPS website](#) for walk in times and services or call 973-655-5211.

Course Information

Text

Introductory Statistics, Robert Gould and Collen Ryan, 1st edition, Pearson Publication

General Aim of the Course

Students are introduced to the basics of descriptive and inferential statistics. Topics include measures of center and spread, probability, the normal distribution, sampling, hypothesis tests and confidence intervals for means and proportions, and regression. Technology is used generously throughout the course for statistical graphics and analysis.

Topics of the Course

Classifying and Visualizing Data

Sections 1.1-1.4, 2.1-2.1 Data, Variables, Qualitative, Quantitative, Discrete, Continuous, Frequency distribution, Stem and Leaf, Histograms, Symmetry, Skewness

Measures of Center and Variability

Section 3.1-3.5: mean, standard deviation, z-scores, outliers, empirical rule, symmetric and skewed distributions, five-number-summary, boxplots, median, interquartile range, modality

Probability

Sections 5.1-5.3 theoretical and empirical probability, sample space, complements, Venn Diagrams, AND, OR, mutually exclusive, Independence, Conditional Probability, Addition Rule, Multiplication Rule, sequences of events

Normal Distribution

Section 6.1, 6.2 discrete and continuous probability distributions, the normal distribution, probability as area under curve, finding areas with tables and with technology, percentiles

Survey Sampling

Section 7.1, 7.2 Population, sample, parameters, statistics, estimators, bias, simple random sampling, sampling distribution, precision, standard error

Inference for Proportions

Sections 7.3-7.4, 8.1-8.5 Central Limit Theorem for the Sample Proportion, confidence intervals for one proportion, margin of error, hypothesis tests for one and two proportions, significance level, p-value, test-statistic

Inference for Means

Sections 9.1-9.5 Central Limit Theorem for the Sample Mean, confidence intervals for one and two means, t-distribution, hypothesis test for one mean, hypothesis test for two independent samples, hypothesis test for paired (dependent) samples

Goodness of Fit Test

Sections 10.1, 10.2 Chi-square distribution, chi-square statistic, goodness of fit test, two-way table

Regression

Sections 4.1-4.4 Scatterplots, trends, positive/negative correlation, regression equation, correlation coefficient, coefficient of determination, predictor and response variables, influential points, extrapolation