



[Outline of the General Chemistry Course]

Course Description

This course covers the general principles of statistics, a method to describe numbers and distributions with graphs and tables so that reasonable assumptions can be made of a population given a sample.

Typical Course Mechanics:

- 1-3 hours of lecture a week (or 5 hours of online video)
- Weekly or every-other week quizzes
- One or two midterms (online or in class)
- One final (almost always in class)

A typical student should expect to spend about 2-4 hours in class (or watching online videos) and an additional 5-10 doing homework and studying per week.

Topics Covered and Required Prereq skills

Topic	Prereq required
Exploring Data with Graphs and Numbers	Basic Math (081) using graphs and charts
Normal Distribution and Z-score	Intermediate Algebra (One Variable Functions)
Scatterplots and Correlation	Math 084 (Linear Functions)
Probability	Basic Math (081) Working with fractions, proportions and percentages
Inference: One Sample Testing	Intermediate Algebra (Functions)
Inference: Two Sample Testing	Intermediate Algebra (Functions)

[PREPARING FOR THE COURSE]

The following things can be done to help prepare for the course.

Prepare a formula sheet: Have a piece of paper available to write down all the useful formulas you encounter throughout the quarter. These stat formula sheets can also be found online, and you can highlight relevant equations as you encounter them in class

Purchase a graphing calculator: If you do not already own a graphing calculator, purchase one that allows you to see and edit your previous entry. One recommended calculator is the “TI-83 PLUS” from Texas Instruments. Note that the Training Fund usually does not reimburse calculator purchase. The model number must be 83 or higher in order to perform the required statistical functions such as linear regression and hypothesis testing.

Brush up on your intermediate algebra: If you have old algebra books revisit: graphing equations of the form $y=mx+b$, equations that require you to substitute multiple variables with numbers and, ratios and proportions.

ADDITIONAL RESOURCES

ONLINE STATISTIC MATERIALS:

[HTTPS://WWW.KHANACADEMY.ORG/MATH/PROBABILITY/STATISTICS-INFERENTIAL](https://www.khanacademy.org/math/probability/statistics-inferential)

ONLINE ALGEBRA I REVIEW:

<https://www.khanacademy.org/math/algebra/introduction-to-algebra>

(Relevant topics: Ratios and Proportions, Graphing, and Analyzing Linear Functions, Evaluate Formula Using Substitution)

Training Fund Tutoring:

Both online and in-person group tutoring is available by request. Check out:

<http://healthcareerfund.org/tutoring/>