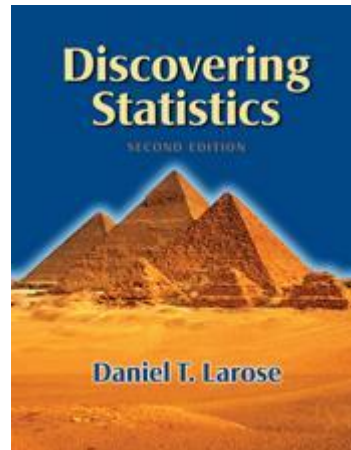


Elementary Statistics (MATH 108–502 and 50B)

Instructor: Cassandra M. Gendron

502 Class Begins:
09/05/12

50B Class Begins:
10/24/12



Requirements:

1. Microsoft Office 2010
2. Text Book: Discovering Statistics by Daniel T. Larose, 2nd Edition, WH FREEMAN

*Section 50B is the same as section 502
except for the dates the course is held. 50B is
a 6 week intensive course. The same amount
of work is done in both classes. It is up to you
to decide how fast you want to do it.*

Contact Information:

Phone: 413-572-5349, leave a message with Deb Samwell

Fax: 413-572-5617, ATTN: Cassandra Gendron

Real Life Office and hours: Wilson 420, MWF 11:30 AM – 12:30 PM and by appointment

Virtual Office and hours: Tuesday and Thursday nights 7-9PM via Collaborate.

E-mail: cgendron@westfield.ma.edu (BEST WAY TO CONTACT ME!!!!!!!!!!!!!!!!!!!!!!)

Course Introduction:

Welcome to Elementary Stats online. This is a full semester course starting on Sept 5, 2012 and ending on December 20, 2012.

This course is just like any other course, with specific due dates and you are required to spend a minimum of 8-10 hours a week on this course. This requirement is not necessarily met online. I will NOT be tracking your online time.

I do not intend to give incompletes or make ups unless there is a case of a documented emergency. If there is an emergency where you cannot submit your work on time you MUST contact DGCE. I will not extend any deadline unless this step is taken.

It is expected that you have basic computer skills when you are taking an online course. I am not your personal tech support. I teach math, not computers, any technical problems need to be directed to CIT. They are an awesome, friendly bunch and usually have tasty baked goods in their office. They are always there to help you.

Text and Required Equipment:

We will be using Discovering Statistics by Daniel T LaRose, 2nd edition, ISBN: 978-1-4292-9525-3

All your work will be done in Microsoft Word and Microsoft Excel. You are **required** to have Microsoft Office 2010 for this course. You can download it from the University at a very fair and cheap price. Older versions are acceptable, but I will not be providing lectures using older software. My lectures are based on Excel 2010.

(You may use open office, but I will not be providing lectures on this software).

You also will need an up to date PDF reader and the most current version of flash on your computer. This is free software, and generally the computer takes care of itself in the updating process. If you have any trouble, please speak with CIT.

Grading:

I will be grading almost everything of what you do for me. There are some assignments that I will check for completion. There are some assignments that I will grade for accuracy and correctness. I will inform you how I will be grading each assignment.

The breakdown of how your final grade is calculated is as such:

- Participation (assignments I grade for completion): 30%
- Homework (assignments I grade for accuracy): 40%
- Projects (2 projects): 30% (15% each)

Your grade will be calculated on the following rubric:

Score	100-95	94-90	89-85	84-83	82-80	79-75	74-73	72-70	69-60	59-0
Grade	A	A-	B+	B	B-	C+	C	C-	D	F

*I DO NOT SCALE GRADES

Submitting your work:

- All assignments should be submitted through Plato, in the assignment drop box.
 - ***E-mailed assignments will be assumed as rough drafts and will not be graded.***
- You may fax your work, as long as it is ATTN: Cassondra Gendron
- You may take pictures of your work as long as the pictures are CLEAR and LEGIBLE and attach the pictures to the assignment drop box
- You may scan your work as a .pdf and attach it to the assignment in the drop box.
- **Preferred Method:** Typed in word, or excel and attached to the assignment in the drop box.
 - I like assignments that are typed in word to be converted to PDF documents so that I may comment on them, without disrupting the original formatting of the Word document. I can also do this in word, but PDF is preferred, because I make my comments by hand. I use a stylus to write directly on your work.
 - Excel documents should stay in the .xlsx or .xls forms so that I can check your use of formulas.

Core Course Objectives:

A core course in applied mathematics should enable students to:

- Recognize, understand, utilize, integrate and communicate mathematical concepts, mathematical methods and logical reasoning; and/or
- Apply mathematical concepts, mathematical methods, and mathematical reasoning within an analytic framework; and/or
- Conceptualize and utilize formal mathematical and formal logical reasoning; and/or
- Conceptualize and utilize algorithms and formal mathematical structures.

Expected Course Outcomes:

An introduction to basic concepts and techniques of statistics for students needing skills for research techniques in education, business, and the physical, life and social sciences, or simply to understand the mass of statistical information in modern life.

Course Topics:

- Qualitative vs. Quantitative Data
- Levels of Measurement
- Graphical Displays of Data
 - Stem and leaf plots
 - Pie charts
 - Bar graphs
 - Histograms
 - Scatter plots
 - Box and whisker plots
- Interpreting graphs
 - Estimating center and spread
 - Determining shape, symmetry, mode, outliers
 - Spotting bias in graphs
 - What makes a good graph?
- Measures of Data
 - Mean, standard deviation, variation,
 - 5 number summary
 - Median, quartiles, percentiles, IQR
 - Skewness
 - Outliers
 - Mean or Median, which is appropriate?

- Probability
 - Combinations and Permutations
 - Binomial Distribution
 - Standard Normal Distribution
 - Conjunct and Disjunct Probability (and, or)
 - Conditional Probability
 - Independent/Dependent probability
- Normal Distribution
 - Bell curves
 - Percentiles
 - z-scores
 - Rules of Variation
 - Empirical Rule
 - Chebychev's Rule
 - Range Rule of Thumb
- Linear Regression
 - Review of linear equations
 - Scatter plots
 - Line of best fit
 - What does the r-coefficient tell us?
 - Using the mathematics to make estimates
- Inferential Statistics
 - Confidence intervals
 - Hypothesis Testing
- Project 2

As you know, copying is plagiarism, and that is an offense that the university takes seriously. It is your responsibility that all sources are cited correctly. I will be looking at your work carefully. Please make sure that all resources are cited correctly. Also, please list anyone whom you received help from. I will pursue any case of plagiarism that I find, and I will follow all procedures laid out in the University's course bulletin.

Students with Disabilities:

Special accommodations can be made for students with disabilities. If you need any kind of accommodation please contact me. If you have not already done so, I also encourage you to document this with Disability Services office in the Banacos Academic Center in Parenzo Hall.