



POINT LOMA
NAZARENE UNIVERSITY



Syllabus for Introduction to Statistics—Summer 2012

Instructors:

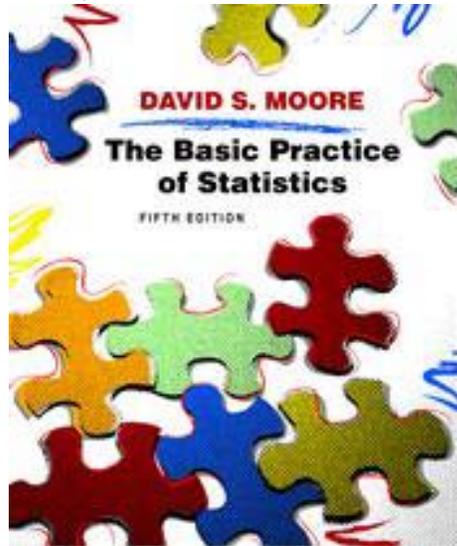
[Ryan Botts](#)
RS 228
849-2968

Class meetings:

Sec. 1 RS 15
M,T,W,Th
9:55-12:05

Text:

The Basic Practice of Statistics, 4th Edition, David S. Moore,
W. H. Freeman, 2010. ISBN-13 978-1-4292-0121-6

**Table of Contents:**

Course Description
Course Goals
Required Materials
Course Philosophy
Grading Policies
Attendance Policy
Classroom Attire
Academic Accommodations
Cheating Policy
The Final Examination

Course Description

MTH 203 (2&3) Introduction to Statistics

A first course in statistics for the general student. Description of sample data, probability theory, theoretical frequency distributions, sampling, estimation, and hypothesis testing. Not applicable toward a major in mathematics.

Prerequisite: Mathematics 099 (or equivalent).

Learning Outcomes

- Students will be able to apply their technical knowledge to solve problems.
- Students will be able to compute measures of central tendency for data.
- Students will be able to compute measures of dispersion for data.
- Students will be able to use statistical methods to test hypotheses.

Required Materials

- Calculator: A cheap calculator (with at least a square root key).

Course Philosophy

Mathematics is learned primarily by **doing** Mathematics—not simply listening to it; that is, the effective learning of mathematics is an active process, involving participation. Thus, the course aims to maximize student involvement, hence student achievement.

Individual concepts in mathematics are **learned** (mastered as opposed to memorized) by thinking and working through numerous examples and exercises which involve these concepts; by this process mathematical concepts become familiar, and less abstract.

The instructor is responsible for overall planning, for directing instructional activities, and for evaluation of student achievement.

You are ultimately responsible for your own achievement. For example, you are responsible for meeting all scheduled activities of the course, such as class meetings, problem assignments, exams, and the final examination; you are also responsible for regular work outside of class in preparation for class lectures and discussions.

Grading Policies

Grading Distribution	Points
Two Examinations at 200 points each	400
Laboratory Test	150
Final Exam	250
Homework (text exercises)	150
Laboratory (reports)	50
Total	1000

Grading scale

Grades are based on the number of points accumulated throughout the course.

Approximate minimal percentages required to obtain a given grade are:

Grading Scale in percentages	A	B	C	D
+		(87.5, 90)	(77.5, 80)	(67.5, 70)
	[92.5, 100]	[82.5, 87.5]	[72.5, 77.5]	[62.5, 67.5]
-	[90, 92.5)	[80, 82.5)	[70, 72.5)	[60, 62.5)

Grade components.

The grade components are homework (text exercises), laboratory reports, tests (class and laboratory), and the final examination.

- **Late work.** A written assignment or computer assignment is late if it is not received at the beginning of class on the due date. Late work need not be accepted. Work accepted late may be assessed a penalty. Make-up tests will only be given by arrangement with the instructor for reasons of documented emergency.
- **Homework.** Homework will be assigned for each chapter, the day we complete our in class discussion of the chapter and will be due the following day. The complete list of problems is attached at the end of this document.
- **Accuracy of solutions.** Written assignments and examination questions and problems must be formulated carefully in terms of words and symbols used in the course. Credit is determined by the degree to which

answers and solutions respond to the specific question or problem stated. Maximize your credit by learning the language and symbols of the course.

- **Written Assignments.** Collected assignments must be prepared in a style suitable for grading. The following guidelines are used to determine credit:
 - the organization must be easy to follow
 - the work must be legible
 - complete solutions must be written for problems (not just answers); answers must be clearly marked
 - use complete sentences to answer questions
- **Electronic Assignments.** Assignments sent in as attachments must be prepared in a style suitable for grading. The following guidelines are used to determine credit:
 - the organization must be easy to follow
 - the formatting must enhance the organization
 - complete solutions must be written for problems (not just answers); answers must be clearly indicated
 - use complete sentences to answer questions
- **Examinations and the Final Examination.** Examinations and the Final Examination will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class.

No examination shall be missed without prior consent or a well documented emergency beyond your control. A score of zero will be assigned for an examination that is missed without prior consent or a well documented emergency beyond your control.

The examination schedule is included in the daily schedule. This instructor does not intend to accept excuses such as poor communication with parents, benefactors, surf team sponsors and/or travel agents.

Attendance Policy.

After you miss the equivalent of 10% of the classes and labs, you will be warned of impending de-enrollment. If you miss the equivalent of 20% of the classes, you may be de-enrolled or given a course grade of "F" for the semester. Tardiness may result in being marked absent.

Attendance is expected at each class section. In the event of an absence you are responsible for the material covered in class and the assignments given that day. See the Point Loma Nazarene University Catalog for a statement of the university's policy with respect to attendance:

Regular and punctual attendance at all classes in which a student is registered is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements to be met. There are no allowed or excused absences except when absences are necessitated by certain university-sponsored activities and are approved in writing by the Provost. Whenever the number of accumulated absences in a class, for any cause, exceeds ten percent of the total number of class meetings, the faculty member has the option of filing a written report to the Vice Provost for Academic Administration which may result in de-enrollment, pending any resolution of the excessive absences between the faculty member and the student. ... If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of W or WF (no grade). There are no refunds for courses where a de-enrollment was processed. (See the Catalog for full text)

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

Classroom Attire

All students are expected to dress in ways that make the classroom a place where all students are comfortable and

can work efficiently. Distracting attire is not permitted in the classroom. For example, attire associated with the "rush" activities of fraternities and sororities simply causes too many distractions in the classroom. If you choose to "rush" one of the fraternities or sororities, please make sure the "rush" officials know that "rush" attire will not be allowed in this classroom.

Academic Accommodations

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation during the first two weeks of the semester with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files the documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. This policy assists the University in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 (ADA), and ADA amendments Act of 2008, all of which prohibit discrimination against students with disabilities and guarantees all qualified students equal access to and benefits of PLNU programs and activities.

Cheating Policy

Any student who is caught cheating on an exam will receive a zero on that exam and may receive a course grade of "F" for the semester.

The Final Exam is a Comprehensive Examination.

Month	Mon	Tue	Wed	Thu	Fri
May	30	1	2	3	4
	7 Ch.1 Picturing Data Ch.2 Describing Data	8 Ch. 3 Normal Distributions	9 Ch. 4 and 5 Scatterplots and Regression	10 Lab 1 Ch. 8 Sampling	11 Last day to add
	14 Ch. 9 Experimental Design Ch. 10 Basics of Prob.	15 Ch. 11 Sampling Distributions	16 Lab 2 Review	17 Exam 1	18
	21 Ch. 14 and 15 Tests of Significance	22 Ch. 17 Inference about a Pop. Mean	23 Ch. 18 Two Sample Problems	24 Lab 3 Ch. 24 ANOVA	25 Last day to drop
	28 Memorial Day	29 Ch. 19 Inference About A Pop. Proportion	30 Lab 4 Review	31 Exam 2	1
June	4 Ch. 20 Comparing Two Pop. Proportions	5 Ch. 22 Chi-squared	6 Lab Final	7 Final Exam	8
	11	12	13	14	15

Homework Problems:

Ch. 1#36,40,41
 Ch. 2#6,13,26,36,38,45
 Ch. 3#26,28,30,32,34,36,38,42
 Ch. 4#28,20,34,38
 Ch. 5#28,32,34
 Ch. 8#4,6,8,14,30,34,44
 Ch. 9#4,8,14,16,18,30,32,36,44,48,50
 Ch.11#6,8,10,22,26,28,30,34,36
 Ch.14#4,6,12,20,22,34,36,38,40,44,48
 Ch.15#28,30,32,36,38
 Ch.17#4,6,8,26,28,36,34,36,46
 Ch.18#2,4,,8,12,26,28,30,32,34,38,40
 Ch.24#4,8,10,12,14,26,28,30,32,34
 Ch.19#4,6,8,10,14,26,28,32,34
 Ch.20#2,4,6,8,18,20,24,28,32,34
 Ch.22#2,4,6,8,12,14,18,20