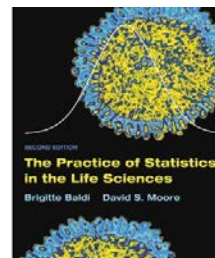


**MTH362 Calculus Based Statistics**  
**MWF 11:00 am-12:05 pm, Quad I Taylor 310**

**Instructor:** Ryan Botts, Ph.D.  
**Office:** Rohr Science 228  
**Office Hours:** M,T,W,Th,F 1:30-2:50  
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**Course Description**

A first course in descriptive and inferential statistics for general students who have taken calculus. Topics include experimental design, sampling and sampling distributions, point estimation and hypothesis testing supported by the use of statistical software.

**Required Materials**

- Calculator: A scientific calculator is recommended
- Textbook: Baldi and Moore, *The Practice of Statistics in the Life Sciences*. ISBN: **1429272724**
- 4 iguanas and a lobster

**Homework**

The homework is designed to allow you to grasp the concepts of Statistics; it is not an end in itself. Assignments will be announced on Monday, Wednesday and Friday. The work will be due on the following Friday. The problems from the text may be submitted entirely on paper in written or in Excel format. Alternately, they may be submitted by e-mail in Excel format. Each file submitted by e-mail must be named according to the rule Last Name, First Initial followed by numbers indicating which assignment is being submitted. For example if I were to submit homework from sections 3.4 and 3.5, the name should be "Botts,3-45.xls"

**Examinations**

There will be a classroom exam and a comprehensive Final exam. No examination shall be missed without an official excuse. A score of zero will be assigned for an exam that is missed without an official excuse. The [exam schedule](#) is included in the [daily schedule](#). I do not intend to accept excuses such as poor communication with parents and/or travel agents.

**Grading Policies**

Grades will be weighted in the following manner:

Midterm Exam (30%)                      Final Exam (50%)                      Homework(20%)

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)

Other factors that affect grades are

- **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 (or the exam) will be given only by arrangement with the instructor for reasons of documented emergency.
- **Questions on written assignments and exams:** Written assignments and test/exam 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.
- **Format for Written Assignments.** Assignments collected 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); solutions must be clearly marked
  - use complete sentences to answer questions
- **Exams and Final Examination.** The Mid-Quad Exam and the Final Exam will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class.

#### **Attendance Policy.**

After you miss the equivalent of 2 class periods, you will be warned of impending de-enrollment. If you miss the equivalent of 5 class periods, you will be de-enrolled.

#### **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, these students are requested to file documentation during the first two weeks of the semester with the Academic Support Center (ASC), located in the Bond Academic Center. This policy assists the University in its commitment to full compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. Once the student files documentation, the ASC will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual learning needs of the student.

#### **Cheating Policy**

A student who is caught cheating on an exam or an assignment will receive a zero on the assignment and may receive an "F" for the semester. FYI- Cheating consists of using work other than your own and not citing it, storing answers on calculators for exams, obtaining copies of old exams, etc.

**The Final Exam** is a **Comprehensive** Examination.

## Tentative Calendar

<b>8-Jan (Tues)</b> Introduction Chapters 1 Picturing Distributions	<b>9-Jan</b> Chapter 2 Describing Distributions with Numbers	<b>11-Jan</b> Chapter 3 Scatterplots and Correlation
<b>14-Jan</b> Chapters 3 and 4 Scatterplots and Correlation Regression	<b>15-Jan</b> Chapters 4 and 5 Regression Two-Way Tables	<b>17-Jan</b> Chapter 7 Samples and Observational Studies
<b>21-Jan</b>  <b>Martin Luther King                  Jr. Day</b>	<b>23-Jan</b> Chapter 8 Designing Experiments	<b>25-Jan</b> Chapter 9 Introducing Probability
<b>28-Jan</b> Chapters 9 and 10 Introducing Probability	<b>30-Jan</b> Chapter 10 General Rules of Probability Review	<b>1-Feb</b>  <b>Midterm Exam</b>
<b>4-Feb</b> Chapter 11 The Normal Distributions	<b>6-Feb</b> Chapter 14 Introduction to Inference	<b>8-Feb</b> Chapters 14 and 15 Introduction to Inference
<b>11-Feb</b> Chapter 15 Inference in Practice	<b>13-Feb</b> Chapter 17 Inference about a Population Mean	<b>15-Feb</b> Chapter 18 Two-Sample Problems
<b>18-Feb</b> Chapter 24 One-Way Analysis of variance	<b>20-Feb</b> Chapter 19 Inference about a Population Proportion	<b>22-Feb</b> Chapter 20 Comparing Two Proportions
<b>25-Feb</b>  <b>Final Exam</b>	<b>27-Feb</b>	<b>1-Mar</b>