



ARIZONA STATE UNIVERSITY

GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

Copy and paste current course information from Class Search/Course Catalog.

College/School: College of Liberal Arts and Sciences, Department: School of Human Evolution and Social Change, Prefix: ASB, Number: 394, Title: Statistics for Social Scientists, Units: 3

Note- For courses that are crosslisted and/or shared, a letter of support from the chair/director of each department that offers the course is required for each designation requested.

Is this a permanent numbered course with topics? No

If yes, all topics under this permanent numbered course must be taught in a manner that meets the criteria for the approved designation(s).

Chair/Director Initials: ker (Required)

Course description:

Requested designation: Mathematical Studies-CS Mandatory Review: (Choose one)

Note- a separate proposal is required for each designation.

Eligibility:

Permanent numbered courses must have completed the university's review and approval process. For the rules governing approval of omnibus courses, contact Phyllis.Lucie@asu.edu.

Submission deadlines dates are as follow:

For Fall 2016 Effective Date: October 1, 2015

For Spring 2017 Effective Date: March 10, 2016

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas.

Checklists for general studies designations:

- Complete and attach the appropriate checklist
Literacy and Critical Inquiry core courses (L)
Mathematics core courses (MA)
Computer/statistics/quantitative applications core courses (CS)
Humanities, Arts and Design core courses (HU)
Social-Behavioral Sciences core courses (SB)
Natural Sciences core courses (SQ/SG)
Cultural Diversity in the United States courses (C)
Global Awareness courses (G)
Historical Awareness courses (H)

A complete proposal should include:

- Signed course proposal cover form
Criteria checklist for General Studies designation(s) being requested
Course catalog description
Sample syllabus for the course
Copy of table of contents from the textbook and list of required readings/books

It is respectfully requested that proposals are submitted electronically with all files compiled into one PDF.

Contact information:

Name: Sara Marsteller, E-mail: smarstel@asu.edu, Phone: 480-727-6043

Department Chair/Director approval: (Required)

Chair/Director name (Typed): Kaye Reed, Date: 1/8/18
Chair/Director (Signature): Kaye E. Reed, 1/10/18

## Arizona State University Criteria Checklist for

### MATHEMATICAL STUDIES [CS]

#### Rationale and Objectives

The **Mathematical Studies** requirement is intended to ensure that students have skill in basic mathematics, can use mathematical analysis in their chosen fields, and can understand how computers can make mathematical analysis more powerful and efficient. The **Mathematical Studies** requirement is completed by satisfying both the **Mathematics [MA]** requirement and the **Computer/Statistics/Quantitative Applications [CS]** requirement explained below.

The **Mathematics [MA]** requirement, which ensures the acquisition of essential skill in basic mathematics, requires the student to complete a course in College Mathematics, College Algebra, or Pre-calculus; or demonstrate a higher level of skill by completing a mathematics course for which a course in the above three categories is a prerequisite.

The **Computer/Statistics/Quantitative Applications [CS]** requirement, which ensures skill in real world problem solving and analysis, requires the student to complete a course that uses some combination of computers, statistics, and/or mathematics.\* Computer usage is encouraged but not required in statistics and quantitative applications courses. At a minimum, such courses should include multiple demonstrations of how computers can be used to perform the analyses more efficiently.

\*CS does *not* stand for computer science in this context; the “S” stands for statistics. Courses in computer science must meet the criteria stated for CS courses.

Revised April 2014

Proposer: Please complete the following section and attach appropriate documentation.

<b>ASU--[CS] CRITERIA</b>			
<b>A COMPUTER/STATISTICS/QUANTITATIVE APPLICATIONS [CS] COURSE MUST SATISFY ONE OF THE FOLLOWING CRITERIA: 1, 2, OR 3</b>			
YES	NO		Identify Documentation Submitted
		<b>1. Computer applications*:</b> courses must satisfy both a and b:	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>a.</b> Course involves the use of computer programming languages or software programs for quantitative analysis, algorithmic design, modeling, simulation, animation, or statistics.	syllabus and textbook
		<b>b.</b> Course requires students to analyze and implement procedures that are applicable to at least one of the following problem domains ( <b>check those applicable</b> ):	syllabus and textbook
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>i.</b> Spreadsheet analysis, systems analysis and design, and decision support systems.	syllabus and textbook
<input type="checkbox"/>	<input type="checkbox"/>	<b>ii.</b> Graphic/artistic design using computers.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>iii.</b> Music design using computer software.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>iv.</b> Modeling, making extensive use of computer simulation.	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>v.</b> Statistics studies stressing the use of computer software.	syllabus and textbook
<input type="checkbox"/>	<input type="checkbox"/>	<b>vi.</b> Algorithmic design and computational thinking.	
<p>*The <b>computer applications</b> requirement <b>cannot</b> be satisfied by a course, the content of which is restricted primarily to word processing or report preparation skills, the study of the social impact of computers, or methodologies to select software packages for specific applications. Courses that emphasize the use of a computer software package are acceptable only if students are required to understand, at an appropriate level, the theoretical principles embodied in the operation of the software and are required to construct, test, and implement procedures that use the software to accomplish tasks in the applicable problem domains. Courses that involve the learning of a computer programming language are acceptable only if they also include a substantial introduction to applications to one of the listed problem domains.</p>			

YES	NO		Identify Documentation Submitted
		<b>2. Statistical applications:</b> courses must satisfy <b>a, b, and c.</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>a.</b> Course has a minimum mathematical prerequisite of College Mathematics, College Algebra, or Pre-calculus, or a course already approved as satisfying the MA requirement.	
		<b>b.</b> The course must be focused principally on developing knowledge in statistical inference and include coverage of all of the following:	
<input type="checkbox"/>	<input type="checkbox"/>	i. Design of a statistical study.	
<input type="checkbox"/>	<input type="checkbox"/>	ii. Summarization and interpretation of data.	
<input type="checkbox"/>	<input type="checkbox"/>	iii. Methods of sampling.	
<input type="checkbox"/>	<input type="checkbox"/>	iv. Standard probability models.	
<input type="checkbox"/>	<input type="checkbox"/>	v. Statistical estimation	
<input type="checkbox"/>	<input type="checkbox"/>	vi. Hypothesis testing.	
<input type="checkbox"/>	<input type="checkbox"/>	vii. Regression or correlation analysis.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>c.</b> The course must include multiple demonstrations of how computers can be used to perform statistical analysis more efficiently, if use of computers to carry out the analysis is not required.	

YES	NO		Identify Documentation Submitted
		<b>3. Quantitative applications:</b> courses must satisfy <b>a, b, and c:</b> .	
<input type="checkbox"/>	<input type="checkbox"/>	<b>a.</b> Course has a minimum mathematical prerequisite of College Mathematics, College Algebra, or Pre-calculus, or a course already approved as satisfying the MA requirement.	
		<b>b.</b> The course must be focused principally on the use of mathematical models in quantitative analysis and decision making. Examples of such models are:	
<input type="checkbox"/>	<input type="checkbox"/>	i. Linear programming.	
<input type="checkbox"/>	<input type="checkbox"/>	ii. Goal programming.	
<input type="checkbox"/>	<input type="checkbox"/>	iii. Integer programming.	
<input type="checkbox"/>	<input type="checkbox"/>	iv. Inventory models.	
<input type="checkbox"/>	<input type="checkbox"/>	v. Decision theory.	
<input type="checkbox"/>	<input type="checkbox"/>	vi. Simulation and Monte Carlo methods.	
<input type="checkbox"/>	<input type="checkbox"/>	vii. Other (explanation must be attached).	
<input type="checkbox"/>	<input type="checkbox"/>	<b>c.</b> The course must include multiple demonstrations of how computers can be used to perform the above applications more efficiently, if use of computers is not required by students.	

Course Prefix	Number	Title	General Studies Designation
ASB	394	Statistics for Social Scientists	

Explain in detail which student activities correspond to the **specific** designation criteria. Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
1a	Course involves the use of software programs for quantitative analysis and statistics	The course teaches students how to use the software program Microsoft Excel to conduct statistical analysis of quantitative data used in social science research. (textbook and yellow highlights in syllabus)
2b.i	Course requires students to analyze and implement procedures in spreadsheet analysis	Students gain an understanding of statistical analyses used in the social sciences by learning how to apply and interpret statistical techniques using data spreadsheets in Microsoft Excel. (textbook and blue highlights in syllabus)
2b.v	Course requires students to analyze and implement procedures in statistics stressing the use of computer software, specifically Microsoft Excel	Students learn how to use statistical and database software program Microsoft Excel to conduct statistical analyses using examples drawn from the social sciences. (textbook and green highlights in syllabus)

## **ASB 394 Statistics for Social Scientists - Course Description**

In this course, we cover techniques used to analyze quantitative data used in the social sciences. Emphasis will be placed on the basic concepts of quantitative analysis including models used to explore causality, an introduction to multivariate analysis, and the use of excel to perform statistical techniques. The course will focus on understanding, applying, and interpreting statistical techniques, rather on the derivations of methods or performance of calculations. The course also will include a brief introduction to qualitative analysis and software used to analyze qualitative information.

*Note: this syllabus is not a contract. It is subject to further change or revision, to best realize the educational goals of the course. Revisions will be announced in class or in course materials online with appropriate prior notice.*

**Statistics for Social Scientists  
ASB 394  
Master Syllabus**

**Course Meetings:** Online (3 credit hours)

**Course Description:**

In this course, we cover techniques used to analyze quantitative data used in the social sciences. Emphasis will be placed on the basic concepts of quantitative analysis including models used to explore causality, an introduction to multivariate analysis, and the use of excel to perform statistical techniques. The course will focus on understanding, applying, and interpreting statistical techniques, rather on the derivations of methods or performance of calculations. The course also will include a brief introduction to qualitative analysis and software used to analyze qualitative information.

We will use examples from across the social sciences, but with an emphasis on global health, anthropology, and environmental social science.

**Course Goals:**

- 1) To develop the student's ability to conduct statistical analysis of quantitative data;
- 2) To increase the students' understanding of the appropriate use of analytic techniques in both descriptive and inferential methods, including hypothesis testing;
- 3) To improve the student's ability to interpret statistical results involving univariate and multivariate statistical analysis;
- 4) To develop the student's ability to use statistical and database software such as Excel;
- 5) To improve student's ability to consume statistical information and analysis as required to conduct social scientific analysis (and interpret analyses in academic literature and mainstream media).

**Learning Outcomes:**

By the end of this course, each student will have demonstrated that they are able to:

- Explain basic statistical findings from media and journal articles
- Pick the appropriate statistics for a study
- Utilize excel to conduct statistical analyses

**Required Course Texts/ Readings:** Salkind, Neil. 2016. *Statistics for People Who (Think They) Hate Statistics Using Microsoft Excel 2016*. 4<sup>th</sup> Edition. Sage Publication.

**Course Format:**

This is an online course. Students will be reading a textbook, outside readings from academic and media sources, watching videos, and watching lectures. Students will be completing lab assignments, quizzes, and posting in discussion boards.

**Coursework**

Final grades for the course will be assigned on basis of the following:

- Quizzes 35 pts or 35 %, based on 7 module quizzes
- Labs 49 pts or 49% based on 7 module labs
- Discussion Board Posts 16% based on 7 module and introduction discussion posts



For your own protection, you should keep a copy of everything you hand in, and you should keep your graded assignments at least until grades are finalized at the end of the semester, and in the event you wish to contest any grades.

**Final Grades:**

A-/ A/ A+	89.5-92.4/ 92.5-97.4/ 97.5-100	Excellent
B- /B/ B+	79.5-82.4/ 82.5-87.4/ 87.5-89.4	Good
C/ C+	69.5-77.4/ 77.5-79.4	Average
D	59.5-69.4	Passing
E	<60	Failure
XE		Failure due to Academic Dishonesty

**Extra Credit**

There will be extra credit opportunities assigned for this course through extra quiz questions. Additionally there will be a few extra credit opportunities within some of the modules. These are due within the module assigned. No additional extra credit opportunities will be made available.

**Incompletes**

A mark of "I" (incomplete) is given by the instructor when you have completed most of the course and are otherwise doing acceptable work but are unable to complete the course because of illness or other conditions beyond your control. You are required to arrange with the instructor for the completion of the course requirements. The arrangement must be recorded on the Request for Grade of Incomplete form (<http://students.asu.edu/forms/incomplete-grade-request>).

**Late Assignments**

Unexcused late assignments will not be accepted. Excuses for an assignment must be made and approved in advance of the due date of the assignment. Requests for excuses must be written, either on paper or email, and approval must be obtained, either by an email reply or by having the paper excuse signed. In order to get credit, with the late assignment you must turn in a copy of the email approval or signed written excuse.

**Grade Appeals**

ASU has formal and informal channels to appeal a grade. If you wish to appeal any grading decisions, please see <http://catalog.asu.edu/appeal>.

**Course Policies**

This is an online course; please be courteous to your classmates and the instructor. All discussion posts should be written in a formal academic style.

**Student Standards**

Students are required to read and act in accordance with university and Arizona Board of Regents policies, including:

The ABOR Code of Conduct: Arizona Board of Regents Policies 5-301 through 5-308:  
<https://students.asu.edu/srr>

**Policy against threatening behavior**

All incidents and allegations of violent or threatening conduct by an ASU student (whether on-or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary,

conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

If you have any questions, please refer to [ACD-304-10 Course Syllabus](#) or contact P.F. Lengel or Jenny Smith in the CLAS Dean's Office at (480) 965-6506.

### **Academic Integrity**

*Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <http://provost.asu.edu/academicintegrity>.*

If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, school, and/or dean. Academic dishonesty includes borrowing ideas without proper citation, copying others' work (including information posted on the internet), and failing to turn in your own work for group projects. Please be aware that if you follow an argument closely, even if it is not directly quoted, you must provide a citation to the publication, including the author, date and page number. If you directly quote a source, you must use quotation marks and provide the same sort of citation for each quoted sentence or phrase. You may work with other students on assignments, however, all writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the TA or the instructor in advance of turning in an assignment. Please be aware that the work of all students submitted electronically can be scanned using SafeAssignment, which compares them against everything posted on the internet, online article/paper databases, newspapers and magazines, and papers submitted by other students (including yourself if submitted for a previous class).

Note: Turning in an assignment (all or in part) that you completed for a previous class is considered self-plagiarism and falls under these guidelines. Any infractions of self-plagiarism are subject to the same penalties as copying someone else's work without proper citations. Students who have taken this class previously and would like to use the work from previous assignments should contact the instructor for permission to do so.

### **Prohibition of Commercial Note Taking Services**

In accordance with [ACD 304-06 Commercial Note Taking Services](#), written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the notetaker's name as well as the instructor's name, the course number, and the date.

### **Student Support and Disability Accommodations**

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

[Qualified students with disabilities may be eligible to receive academic support services and accommodations.](#) Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are [responsible for requesting accommodations and providing qualifying documentation](#) to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities. Qualified students who wish to request an accommodation for a disability should contact their campus DRC at: <http://www.asu.edu/studentaffairs/ed/drc/>

If you are a student in need of special arrangements for we will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services.

### **Drop and Add Dates/Withdrawals**

Please refer to the [academic calendar](#) on the deadlines to drop/withdraw from this course. Consult with your advisor and notify your instructor if you are going to drop/withdraw this course. If you are considering a withdrawal, review the following ASU policies: [Withdrawal from Classes](#), [Medical/Compassionate Withdrawal](#) and [Drop/Add and Withdraw](#).

### **Email Communications**

All email communication for this class will be done through your ASU email account. Your email communications should be [professional](#) and succinct. You should be in the habit of checking your ASU email regularly as you will not only receive important information about your class(es), but other important university updates and information. You are solely responsible for reading and responding if necessary to any information communicated via email. For help with your email contact the [help desk](#).

### **Campus Resources**

As an ASU student you have access to many resources on campus. This includes tutoring, academic success coaching, counseling services, financial aid, disability resources, career and internship help and many opportunities to get involved in student clubs and organizations.

- Tutoring: <http://studentsuccess.asu.edu/frontpage>
- Counseling Services: <http://students.asu.edu/counseling>
- Financial Aid: <http://students.asu.edu/financialaid>
- Disability Resource Center: <http://www.asu.edu/studentaffairs/ed/drc/>
- Major/Career Exploration: <http://uc.asu.edu/majorexploration/assessment>
- Career Services: <http://students.asu.edu/career>
- Student Organizations: <http://www.asu.edu/studentaffairs/mu/clubs/>

For more information about the School of Human Evolution and Social Change, including our degree programs, research opportunities and advising information, please go to: <http://shesc.asu.edu/undergraduate/undergraduate-studies>. Our advisors are always willing to discuss career and guidance options with you.

### **Notes on Letters of Recommendation:**

Please be aware that I receive many requests from students to write letters of recommendation and therefore have set down these guidelines. Students should only request a letter of recommendation if s/he meets the following minimum criteria.

- Has taken *more than* one in-person (upper-division) class with me if it is lecture, or have taken *one intensive* smaller class such as a seminar, lab, or practicum class with me (note: I do not write letters for students who take online classes with me)
- Received A or A+ in a 300 or 400 level cours(es) taken me
- Has spoken with me directly outside of class about career/academic goals

Note that if you meet these minimums it doesn't mean that I will agree to write you a letter. When asking for a letter of recommendation you **MUST** allow *more than two weeks* notice and provide me with the following. Everything listed here must be in *one* email.

- Unofficial Transcript
- Resume or CV

- Any application materials that are pertinent (e.g. personal statement/statement of purpose; answers to application questions; scholarship/job description; a paragraph stating why you are applying for X if you don't have a personal statement/answers to application questions; etc.).
- The information of to whom and where the letter is to be sent (e.g. email address or if it needs to be sent via the US Postal Service you must provide me with a stamped and addressed envelope).
- Clearly stated deadline of when the letter is due.

If I agree to write a letter of recommendation I will only be able to summarize your academic performance in my class(es) and will not be able to speak to any factors that have not been accessed in class. Lastly, if I agree to write you a letter, *you agree* to the following.

- You will let me know the outcome. This is important to me as I will want to know what is happening with you and to keep track of any positive outcomes. Also, this means a lot to me (and anyone else you request letters from).
- You agree to check with me before putting my name down on any subsequent applications (don't just assume you can keep putting my name down if I have only agreed to write one letter for you).

### **Schedule of Readings and Assignments**

In each of the modules there are quizzes, labs, and discussion board assignments. These are due at the end of the module by **11:59 pm**.

	Due Date	Discussion Posts	Labs	Quiz	Points
Introduction	8/25/17	2			2
Module 1	8/25/17	2	7	5	14
Module 2	9/1/17	2	7	5	14
Module 3	9/8/17	2	7	5	14
Module 4	9/15/17	2	7	5	14
Module 5	9/22/17	2	7	5	14
Module 6	9/29/17	2	7	5	14
Module 7	10/6/17	2	7	5	14
	Totals	16	49	35	100

### **Citations for Assigned and Outside Readings**

When citing assigned or outside readings in discussion board posts use APA style. Bibliographic information should be included at the end of the post or assignment.

# **Statistics for People Who (*Think They*) Hate Statistics**

Using Microsoft Excel 2016 ◦ 4th Edition

**Neil J. Salkind**



Los Angeles | London | New Delhi  
Singapore | Washington, DC | Melbourne



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This book is printed on acid-free paper.

16 17 18 19 20 10 9 8 7 6 5 4 3 2 1

# BRIEF CONTENTS

<u>A Note to the Student: Why I Wrote This Book</u>	<u>xxii</u>
<u>And a (Little) Note to the Instructor</u>	<u>xxiv</u>
<u>Acknowledgments</u>	<u>xxv</u>
<u>And Now, About the Fourth Edition . . .</u>	<u>xxvi</u>
<u>About the Author</u>	<u>xxix</u>

## PART I

<u>Yippee! I'm in Statistics</u>	<u>1</u>
<u>1. Statistics or Sadistics? It's Up to You</u>	<u>5</u>
<u>Little Chapter 1a. All You Need to Know</u> <u>About Formulas and Functions</u>	<u>21</u>
<u>Little Chapter 1b. All You Need to Know</u> <u>About Using the Amazing Analysis Tools</u>	<u>40</u>
<u>Little Chapter 1c. For Mac Lovers Who Are Still</u> <u>Using Version 2011: Rejoice!! And, for Mac Lovers</u> <u>Who Are New to Version 2016, Rejoice More!!!</u>	<u>44</u>

## PART II

<u>Σigma Freud and Descriptive Statistics</u>	<u>49</u>
<u>2. Computing and Understanding Averages:</u> <u>Means to an End</u>	<u>51</u>
<u>3. Vive la Différence: Understanding Variability</u>	<u>79</u>
<u>4. A Picture Really Is Worth a Thousand Words</u>	<u>96</u>

5. Ice Cream and Crime: Computing Correlation Coefficients	127
6. <u>Just the Truth: An Introduction to Understanding Reliability and Validity</u>	154

### **PART III**

<u>Taking Chances for Fun and Profit</u>	177
7. <u>Hypotheticals and You: Testing Your Questions</u>	179
8. <u>Are Your Curves Normal? Probability and Why It Counts</u>	194

### **PART IV**

<u>Significantly Different: Using Inferential Statistics</u>	219
9. <u>Significantly Significant: What It Means for You and Me</u>	221
10. <u>Only the Lonely: The One-Sample Z-Test</u>	240
11. <u>t(ea) for Two: Tests Between the Means of Different Groups</u>	251
12. <u>t(ea) for Two (Again): Tests Between the Means of Related Groups</u>	270
13. <u>Two Groups Too Many? Try Analysis of Variance</u>	285
14. <u>Two Too Many Factors: Factorial Analysis of Variance—A Brief Introduction</u>	303
15. <u>Cousins or Just Good Friends? Testing Relationships Using the Correlation Coefficient</u>	318
16. <u>Predicting Who'll Win the Super Bowl: Using Linear Regression</u>	328
17. <u>What to Do When You're Not Normal: Chi-Square and Some Other Nonparametric Tests</u>	351
18. <u>Some Other (Important) Statistical Procedures You Should Know About</u>	364



19. <u>A Statistical Software Sampler</u>	<u>372</u>
20. <u>(Mini) Data Mining: A Introduction to Getting the Most Out of Your BIG Data</u>	<u>381</u>

## **PART V**

<u>Ten Things You'll Want to Know and Remember</u>	<u>395</u>
--	------------

21. <u>The Ten (or More) Best (and Most Fun) Internet Sites for Statistics Stuff</u>	<u>307</u>
22. <u>The Ten Commandments of Data Collection</u>	<u>403</u>

<u>Appendix A: Excel-erate Your Learning: All You Need to Know About Excel</u>	<u>406</u>
--	------------

<u>Appendix B: Tables</u>	<u>412</u>
---------------------------	------------

<u>Appendix C: Data Sets</u>	<u>428</u>
------------------------------	------------

<u>Appendix D: Answers to Practice Questions</u>	<u>453</u>
--	------------

<u>Appendix E: Math: Just the Basics</u>	<u>489</u>
--	------------

<u>Appendix F: The Reward: The Brownie Recipe</u>	<u>494</u>
---	------------

<u>Glossary</u>	<u>496</u>
-----------------	------------

<u>Index</u>	<u>504</u>
--------------	------------

# DETAILED CONTENTS

A Note to the Student: Why I Wrote This Book	xxii
And a (Little) Note to the Instructor	xxiv
Acknowledgments	xxv
And Now, About the Fourth Edition . . .	xxvi
About the Author	xxix

## PART I

<u>Yippee! I'm in Statistics</u>	<u>1</u>
<u>I. Statistics or Sadistics? It's Up to You</u>	<u>5</u>
<u>Why Statistics?</u>	<u>5</u>
And Why Excel?	6
<u>A 5-Minute History of Statistics</u>	<u>6</u>
<u>Statistics: What It Is (and Isn't)</u>	<u>8</u>
<u>What Are Descriptive Statistics?</u>	<u>9</u>
<u>What Are Inferential Statistics?</u>	<u>10</u>
<u>In Other Words</u>	<u>11</u>
<u>Tooling Around With the</u>	
<u>Data Analysis Tools</u>	<u>11</u>
<u>What Am I Doing in a Statistics Class?</u>	<u>12</u>
<u>Ten Ways to Use This Book (and Learn</u>	
<u>Statistics at the Same Time!)</u>	<u>14</u>
<u>+ Icons</u>	<u>16</u>
<u>Key to Difficulty Icons</u>	<u>17</u>
<u>Key to "How Much Excel" Icons</u>	<u>18</u>
<u>Glossary</u>	<u>18</u>
<u>Summary</u>	<u>18</u>
<u>Time to Practice</u>	<u>19</u>
<u>Little Chapter 1a. All You Need to Know</u>	
<u>About Formulas and Functions</u>	<u>21</u>
<u>What's a Formula?</u>	<u>21</u>
<u>Creating a Formula</u>	<u>22</u>

<u>Operator, Operator—Get Me a Formula!</u>	24
<u>Beware the Parentheses</u>	24
<u>What's a Function?</u>	25
<u>Using a Function</u>	26
<u>Using Functions in Formulas</u>	32
<u>We're Taking Names: Naming Ranges</u>	33
<u>Using Ranges</u>	35
<u>Real-World Stats</u>	37
<u>Summary</u>	37
<u>Time to Practice</u>	37
<u>Little Chapter 1b. All You Need to Know About</u>	
<u>Using the Amazing Data Analysis Tools</u>	40
<u>A Look at the Data Analysis Tools</u>	41
<u>Don't Have It? (Installation Again!)</u>	43
<u>Little Chapter 1c. For Mac Lovers Who Are Still</u>	
<u>Using Version 2011: Rejoice!! And, for Mac Lovers</u>	
<u>Who Are New to Version 2016, Rejoice More!!!</u>	44
<u>A Mac Alternative to the Data Analysis Tools</u>	44
<u>Getting Started With StatPlus</u>	45
<u>Computing Descriptive Statistics</u>	45
<u>Options and Preferences</u>	47
<u>What StatPlus Can Do</u>	47

## **PART II**

<u>Sigma Freud and Descriptive Statistics</u>	49
<u>2. Computing and Understanding Averages:</u>	
<u>Means to an End</u>	51
<u>Computing the Mean</u>	52
<u>And Now . . . Using Excel's AVERAGE Function</u>	53
<u>Computing a Weighted Mean</u>	57
<u>Computing the Median</u>	59
<u>And Now . . . Using Excel's MEDIAN Function</u>	61
<u>Computing the Mode</u>	64
<u>And Now . . . Using Excel's MODE.SNGL Function</u>	65
<u>Apple Pie à la Bimodal</u>	67
<u>And Now . . . Using Excel's</u>	
<u>MODE.MULT Function</u>	68
<u>Using the Amazing Data Analysis</u>	
<u>Tools to Compute Descriptive Statistics</u>	69
<u>Make the Data Analysis Tools Output Pretty</u>	73
<u>When to Use What</u>	74

<u>Real-World Stats</u>	75
<u>Summary</u>	76
<u>Time to Practice</u>	76
<b>3. <u>Vive la Différence: Understanding Variability</u></b>	<b>79</b>
<u>Why Understanding Variability Is Important</u>	79
<u>Computing the Range</u>	80
<u>Computing the Standard Deviation</u>	82
<u>And Now . . . Using Excel's STDEV.S Function</u>	84
<u>Why <math>n - 1</math>? What's Wrong With Just <math>n</math>?</u>	86
<u>What's the Big Deal?</u>	88
<u>Computing the Variance</u>	89
<u>And Now . . . Using Excel's VAR.S Function</u>	89
<u>The Standard Deviation Versus the Variance</u>	91
<u>Using the Amazing Data Analysis Tools (Again!)</u>	92
<u>Real-World Stats</u>	92
<u>Summary</u>	93
<u>Time to Practice</u>	93
<b>4. <u>A Picture Really Is Worth a Thousand Words</u></b>	<b>96</b>
<u>Why Illustrate Data?</u>	96
<u>Ten Ways to a Great Figure (Eat Less and Exercise More?)</u>	97
<u>First Things First: Creating a Frequency Distribution</u>	98
<u>The Classiest of Intervals</u>	99
<u>The Plot Thickens: Creating a Histogram</u>	100
<u>The Tally-Ho Method</u>	102
<u>Using the Amazing Data Analysis Tools to Create a Histogram</u>	103
<u>The Next Step: A Frequency Polygon</u>	106
<u>Cumulating Frequencies</u>	108
<u>Fat and Skinny Frequency Distributions</u>	109
<u>Average Value</u>	110
<u>Variability</u>	110
<u>Skewness</u>	111
<u>Kurtosis</u>	112
<u>Excel-lent Charts</u>	114
<u>Your First Excel Chart: A Moment to Remember (Sigh)</u>	115
<u>Excel-lent Charts Part Deux: Making Charts Pretty</u>	117
<u>Other Cool Charts</u>	123
<u>Bar Charts</u>	123
<u>Line Charts</u>	123
<u>Pie Charts</u>	124
<u>Real-World Stats</u>	125
<u>Summary</u>	125
<u>Time to Practice</u>	126

<b>5. Ice Cream and Crime: Computing</b>	
<b><u>Correlation Coefficients</u></b>	<b>127</b>
<u>What Are Correlations All About?</u>	127
<u>Types of Correlation Coefficients:</u>	
<u>Flavor 1 and Flavor 2</u>	128
<u>Computing a Simple Correlation Coefficient</u>	131
<u>And Now . . . Using Excel's CORREL Function</u>	133
<u>A Visual Picture of a Correlation:</u>	
<u>The Scatterplot</u>	134
<u>Using Excel to Create a Scatterplot</u>	138
<u>Bunches of Correlations:</u>	
<u>The Correlation Matrix</u>	140
More Excel—Bunches of Correlations à la Excel	140
<u>Using the Amazing Data Analysis Tools to Compute</u>	
<u>Correlations</u>	141
<u>Understanding What the Correlation</u>	
<u>Coefficient Means</u>	144
<u>Using-Your-Thumb Rule</u>	144
<u>A Determined Effort: Squaring the Correlation</u>	
<u>Coefficient</u>	145
<u>As More Ice Cream Is Eaten, the Crime Rate</u>	
<u>Goes Up (or Association Versus Causality)</u>	147
<u>Other Cool Correlations</u>	148
<u>Real-World Stats</u>	149
<u>Summary</u>	150
<u>Time to Practice</u>	150
<b>6. Just the Truth: An Introduction to</b>	
<u>Understanding Reliability and Validity</u>	154
<u>An Introduction to Reliability and Validity</u>	154
<u>What's Up With This Measurement Stuff?</u>	155
<u>All About Measurement Scales</u>	156
<u>A Rose by Any Other Name:</u>	
<u>The Nominal Level of Measurement</u>	157
<u>Any Order Is Fine With Me: The Ordinal</u>	
<u>Level of Measurement</u>	157
<u>1 + 1 = 2: The Interval Level of Measurement</u>	157
<u>Can Anyone Have Nothing of Anything?</u>	
<u>The Ratio Level of Measurement</u>	158
<u>In Sum . . .</u>	158
<u>Reliability—Doing It Again Until You Get It Right</u>	159
<u>Test Scores—Truth or Dare</u>	159
<u>Observed Score = True Score + Error Score</u>	160
<u>Different Types of Reliability</u>	161
<u>How Big Is Big? Interpreting</u>	
<u>Reliability Coefficients</u>	167

And If You Can't Establish Reliability . . . Then What?	167
Just One More Big Thing	168
Validity—Whoa! What Is the Truth?	168
Different Types of Validity	169
And If You Can't Establish Validity . . . Then What?	172
A Last, Friendly Word	173
Validity and Reliability: Really Close Cousins	173
Real-World Stats	174
Summary	175
Time to Practice	175

## PART III

<b>Taking Chances for Fun and Profit</b>	<b>177</b>
<b>7. Hypotheticals and You: Testing Your Questions</b>	<b>179</b>
So You Want to Be a Scientist	179
Samples and Populations	180
The Null Hypothesis	181
The Purposes of the Null Hypothesis	182
The Research Hypothesis	183
The Nondirectional Research Hypothesis	184
The Directional Research Hypothesis	185
Some Differences Between the Null Hypothesis and the Research Hypothesis	187
What Makes a Good Hypothesis?	188
Real-World Stats	190
Summary	192
Time to Practice	192
<b>8. Are Your Curves Normal? Probability and Why It Counts</b>	<b>194</b>
Why Probability?	194
The Normal Curve (aka the Bell-Shaped Curve)	195
Hey, That's Not Normal!	196
The Central Limit Theorem	198
More Normal Curve 101	200
Our Favorite Standard Score: The $z$ Score	203
Using Excel to Compute $z$ Scores	206
What $z$ Scores Represent	209
What $z$ Scores Really Represent	213
Hypothesis Testing and $z$ Scores: The First Step	215
Real-World Stats	216
Summary	216
Time to Practice	217

## PART IV

<b>Significantly Different: Using Inferential Statistics</b>	<b>219</b>
<b>9. Significantly Significant: What It Means</b>	
<b>for You and Me</b>	<b>221</b>
The Concept of Significance	221
If Only We Were Perfect	222
The World's Most Important Table	
(for This Semester Only)	224
More About Table 9.1	225
Back to Type I Errors	226
Significance Versus Meaningfulness	228
An Introduction to Inferential Statistics	229
How Inference Works	230
How to Select What Test to Use	230
Here's How to Use the Chart	231
An Introduction to Tests of Significance	233
How a Test of Significance Works: The Plan	233
Here's the Picture That's Worth a	
Thousand Words	235
Confidence Intervals—Be Even More Confident	236
Real-World Stats	238
Summary	238
Time to Practice	238
<b>10. Only the Lonely: The One-Sample Z-Test</b>	<b>240</b>
Introduction to the One-Sample Z-Test	240
The Path to Wisdom and Knowledge	241
Computing the Test Statistic	243
Time for an Example	244
So How Do I Interpret $z = 2.38, p < .05$ ?	246
Using the Excel Z.TEST Function to	
Compute the $z$ Value	246
Real-World Stats	248
Summary	249
Time to Practice	249
<b>11. <math>t</math>(ea) for Two: Tests Between the Means</b>	
<b>of Different Groups</b>	<b>251</b>
Introduction to the $t$ -Test for Independent Samples	251
The Path to Wisdom and Knowledge	252
Computing the Test Statistic	254
Time for an Example	254
So How Do I Interpret $t_{(30)} = -0.14, p > .05$ ?	258
And Now . . . Using Excel's T.TEST Function	259

<u>Using the Amazing Data Analysis Tools to</u>	
<u>Compute the <math>t</math> Value</u>	261
<u>Results</u>	264
<u>Special Effects: Are Those Differences for Real?</u>	264
<u>Computing and Understanding</u>	
<u>the Effect Size</u>	265
<u>A Very Cool Effect Size Calculator</u>	267
<u>Real-World Stats</u>	268
<u>Summary</u>	268
<u>Time to Practice</u>	268
<b>12. <u><math>t</math>(ea) for Two (Again): Tests Between the</u></b>	
<u>Means of Related Groups</u>	270
<u>Introduction to the <math>t</math>-Test for Dependent Samples</u>	270
<u>The Path to Wisdom and Knowledge</u>	271
<u>Computing the Test Statistic</u>	273
<u>So How Do I Interpret <math>t_{(24)} = 2.45, p &lt; .05?</math></u>	276
<u>And Now . . . Using Excel's</u>	
<u>T.TEST Function</u>	277
<u>Using the Amazing Data Analysis</u>	
<u>Tools to Compute the <math>t</math> Value</u>	279
<u>Real-World Stats</u>	282
<u>Summary</u>	283
<u>Time to Practice</u>	283
<b>13. <u>Two Groups Too Many? Try Analysis of Variance</u></b>	285
<u>Introduction to Analysis of Variance</u>	285
<u>The Path to Wisdom and Knowledge</u>	286
<u>Different Flavors of ANOVA</u>	286
<u>Computing the <math>F</math>-Test Statistic</u>	289
<u>So How Do I Interpret</u>	
<u><math>F_{(1, 17)} = 8.80, p &lt; .05?</math></u>	295
<u>And Now . . . Using Excel's EDIST</u>	
<u>and FTEST Functions</u>	296
<u>Using the Amazing Data Analysis Tools</u>	
<u>to Compute the <math>F</math> Value</u>	296
<u>Real-World Stats</u>	300
<u>Summary</u>	300
<u>Time to Practice</u>	300
<b>14. <u>Two Too Many Factors: Factorial Analysis of</u></b>	
<u>Variance—A Brief Introduction</u>	303
<u>Introduction to Factorial Analysis of Variance</u>	303
<u>Two Flavors of Factorial ANOVA</u>	304
<u>The Path to Wisdom and Knowledge</u>	305
<u>A New Flavor of ANOVA</u>	307



<u>The Main Event: Main Effects in</u>	
<u>Factorial ANOVA</u>	308
<u>Even More Interesting: Interaction Effects</u>	309
<u>Using the Amazing Data Analysis Tools to</u>	
<u>Compute the ANOVA <math>F</math> Statistic</u>	311
<u>Real-World Stats</u>	316
<u>Summary</u>	317
<u>Time to Practice</u>	317
<b>15. Cousins or Just Good Friends?</b>	
<u>Testing Relationships and the Significance</u>	
<u>of the Correlation Coefficient</u>	318
Introduction to Testing the Correlation Coefficient	318
<u>The Path to Wisdom and Knowledge</u>	319
<u>Computing the Test Statistic</u>	319
<u>So How Do I Interpret <math>r_{(24)} = .393, p &lt; .05</math>?</u>	324
<u>Causes and Associations (Again!)</u>	325
<u>Significance Versus Meaningfulness</u>	
<u>(Again, Again!)</u>	325
<u>Real-World Stats</u>	326
<u>Summary</u>	327
<u>Time to Practice</u>	327
<b>16. Predicting Who'll Win the Super Bowl:</b>	
<u>Using Linear Regression</u>	328
<u>What Is Prediction All About?</u>	328
The Logic of Prediction	330
<u>Drawing the World's Best Line (for Your Data)</u>	333
<u>And Now . . . Using Excel's SLOPE Function</u>	337
<u>And Now . . . Using Excel's</u>	
<u>INTERCEPT Function</u>	339
<u>Using the Amazing Data Analysis Tools to Compute</u>	
<u>the Regression Equation</u>	342
<u>How Good Is Our Prediction?</u>	344
<u>The More Predictors, the Better? Maybe</u>	345
<u>The Big Rule When It Comes to Using Multiple</u>	
<u>Predictor Variables</u>	346
<u>Real-World Stats</u>	347
<u>Summary</u>	348
<u>Time to Practice</u>	348
<b>17. What to Do When You're Not Normal:</b>	
<u>Chi-Square and Some Other Nonparametric Tests</u>	351
Introduction to Nonparametric Statistics	351
Introduction to One-Sample Chi-Square	352
Computing the Chi-Square Test Statistic	353

<u>So How Do I Interpret <math>\chi^2 = 20.6, p &lt; .05?</math></u>	356
<u>And Now . . . Using Excel's</u>	
<u>CHISQ.TEST Function</u>	357
<u>Other Nonparametric Tests You Should Know About</u>	360
<u>Real-World Stats</u>	361
<u>Summary</u>	362
<u>Time to Practice</u>	362
<b>18. <u>Some Other (Important) Statistical</u></b>	
<b><u>Procedures You Should Know About</u></b>	<b>364</b>
<u>Post Hoc Comparisons</u>	365
<u>Multivariate Analysis of Variance</u>	365
<u>Repeated Measures Analysis of Variance</u>	366
<u>Analysis of Covariance</u>	367
<u>Multiple Regression</u>	367
<u>Logistic Regression</u>	368
<u>Factor Analysis</u>	368
<u>Data Mining</u>	369
<u>Path Analysis</u>	370
<u>Structural Equation Modeling</u>	370
<u>Summary</u>	371
<b>19. <u>A Statistical Software Sampler</u></b>	<b>372</b>
<u>Selecting the Perfect Statistics Software</u>	373
<u>What's Out There</u>	374
<u>The Free Stuff and Open Source Stuff</u>	375
<u>Time to Pay</u>	377
<u>Summary</u>	380
<b>20. <u>(Mini) Data Mining: A Introduction to</u></b>	
<b><u>Getting the Most Out of Your BIG Data</u></b>	<b>381</b>
<u>Our Sample Data Set—Who Doesn't Love Babies?</u>	383
<u>Some Excel Data-Exploring Functions</u>	384
<u>The DAVERAGE Function</u>	385
<u>What DAVERAGE Does</u>	385
<u>What DAVERAGE Looks Like</u>	385
<u>Using the DAVERAGE Function</u>	386
<u>The COUNTIF Function</u>	388
<u>What COUNTIF Does</u>	388
<u>What COUNTIF Looks Like</u>	388
<u>Using the COUNTIF Function</u>	388
<u>Pivot Tables and Cross-Tabulation:</u>	
<u>Finding Hidden Patterns</u>	389
<u>Creating a Pivot Table</u>	390
<u>Modifying a Pivot Table</u>	393
<u>Summary</u>	394
<u>Time to Practice</u>	394

## PART V

<b>Ten Things You'll Want to Know and Remember</b>	<b>395</b>
<b>21. The Ten (or More) Best (and Most Fun)</b>	
<b>Internet Sites for Statistics Stuff</b>	<b>397</b>
How About Studying Statistics in Stockholm?	397
Calculators Galore!	398
Who's Who and What's Happened	399
It's All Here	399
HyperStat	399
Data? You Want Data?	400
More and More Resources	401
Online Statistical Teaching Materials	401
And, of Course, YouTube . . .	401
<b>22. The Ten Commandments of Data Collection</b>	<b>403</b>
<b>Appendix A: Excel-erate Your Learning: All You Need to Know About Excel</b>	<b>406</b>
<b>Appendix B: Tables</b>	<b>412</b>
<b>Appendix C: Data Sets</b>	<b>428</b>
<b>Appendix D: Answers to Practice Questions</b>	<b>453</b>
<b>Appendix E: Math: Just the Basics</b>	<b>489</b>
<b>Appendix F: The Reward: The Brownie Recipe</b>	<b>494</b>
<b>Glossary</b>	<b>496</b>
<b>Index</b>	<b>504</b>