

# FALL 2016 MATH1680. 140/840 : Elementary Probability and Statistics

<p><b>Lecture instructor:</b> Jason Taylor</p> <p><b>RECITATION REQUIRED:</b> Verify with your UNT Spring 2016 schedule for the recitation in which you registered. It is your responsibility to know the recitation in which you registered and to attend.</p> <p>sec: <b>141</b> recitation instructor: Vernisie, Rory  sec: <b>142</b> recitation instructor Vernisie, Rory  sec: <b>143</b> recitation instructor Goode, William</p>	<p><b>OFFICE:</b> GAB 471E <b>OFFICE PHONE:</b> 940-369-7374</p>
<p><b>OFFICE HOURS:</b>  MWF 1:30pm-2:50pm  TR 1:15pm-2:50pm</p>	<p><b>CLASS MEETS:</b> TR 03:30pm-04:50pm</p>
<p><b>EMAIL:</b> <a href="mailto:jason.taylor@unt.edu">jason.taylor@unt.edu</a> For emergencies, not in lieu of attendance. Allow two (2) business days for reply. Email must be sent from UNT domain. Include course name, number and section and your full name in the subject header.</p>	<p><b>FINAL EXAM DATE AND TIME:</b>  See online for official UNT FALL 2016 Final exam schedule. Date will be repeatedly announced during lecture.  <a href="http://registrar.unt.edu/exams/final-exam-schedule/fall">http://registrar.unt.edu/exams/final-exam-schedule/fall</a>  <b>UNT MATH TUTOR LAB (GAB 440):</b>  Go to Website: <a href="http://www.math.unt.edu/mathlab">www.math.unt.edu/mathlab</a> for information.  <b>Opens Sept.6</b></p>
<p><b>COURSE DESCRIPTION:</b> Math 1680 (MATH1342) Introductory course to serve students of any field who want to apply statistical inference. Descriptive statistics, elementary probability, estimation, hypothesis testing and small samples. Satisfies the Mathematics requirement of the University Core Curriculum.</p>	
<p><b>BLACKBOARD LEARN</b> (<a href="http://learn.unt.edu">http://learn.unt.edu</a>): Course handouts, such as Syllabus, Calendar, Class Notes Templates, etc. will be posted in Blackboard.</p> <p>You will access your math course platform from within Blackboard Learn. The course content (assignments, help tools, textbook, etc.) will be delivered in MyStatLab of PearsonMyLabandMastering which is accessed through Blackboard Learn after you login. Students must register in MyStatLab (MSL) by the 2<sup>nd</sup> class of semester. You must purchase MSL by the end of the temporary 14-day access period. Students who do not purchased MSL by the end of the temporary access may lose credit for all work previously completed in MSL AND be administratively dropped with the possibility of no refund. Students will NOT be given extensions for any missed assignments for any reason. Not having access to MSL is not an exception.</p>	
<p><b>PRINT TEXTBOOK</b> is OPTIONAL:</p> <p><b>Statistics Informed Decisions Using Data, 4th Edition with Integrated Review, Michael Sullivan, III.</b>  The textbook in electronic form is included in MSL. MSL may be purchased packaged with textbook, as a stand-alone or directly online at the time of registration.</p>	
<p><b>CAMPUS INTERNET ACCESS:</b>  UNT has many general access computer labs for students, see <a href="http://www.gacl.unt.edu/">http://www.gacl.unt.edu/</a>.</p>	<p><b>ONLINE TUTORING:</b>  The UNT Learning Center offers an online tutoring system using the AskOnline platform. Go to <a href="http://www.unt.edu/lc">www.unt.edu/lc</a>, and select the online tutoring button located along the top of the page. See BB for more information.</p>
<p><b>GRAPHING CALCULATOR:</b>  TI-83, TI-83 Plus, TI-84, TI-84 Plus or equivalent for the lecture. Only TI-83/TI-84, TI-83/TI-84 Plus are supported. TI NSpires, TI-89's, TI-92'2 or any other utility with alphanumeric/CAS capabilities ARE NOT permitted. A calculator may not be shared during an exam..</p>	
<p><b>ATTENDANCE POLICY:</b>  Class attendance is mandatory. Students are responsible for all information given in class, regardless of his/her attendance. Starting <b>Saturday, Oct.8</b>, students may be administratively dropped from the course for nonattendance with a grade of WF. The last day a student may be dropped for nonattendance is <b>Wednesday, Nov. 23</b>. Five or more absences constitute nonattendance.</p>	

**ACADEMIC DISHONESTY:**

Refer to the following university site for the official policy with regards to academic dishonesty. The web site is:  
<http://vpaa.unt.edu/academic-integrity.htm>

**EVALUATION:**

Homework (MSL)	15%
3 Exam Review HWs	5%
Chapter Quizzes (MSL)	10%
3 in-class Exams	45%(15%*3)
Final in-class Exam	15%
Recitation	10%
At the end of semester project 2% bonus	

**GRADE ASSIGNMENT:**

A: [90%, 100%); B: [80%, 90%); C: [70%, 80%); D: [60%, 70%);  
 F: [0%, 60%), 59% is an F.

A grade of C or better is required for this course to serve as prerequisite for any math course.

Student grade is determined solely by his/her performance on the evaluation criteria. Grades are not wages; they are not intended to reflect how hard you've worked or the goodness of your intentions. Grades reflect your proficiency of the course content as you have demonstrated them on the evaluation criteria. Expect no extra credit or bonus assignments.

**FINAL GRADE:**

Students may access their course grades online at: my.unt.edu. Grades posted in MyStatLab are for your record-keeping purposes only. Your final course grade is determined by the criteria explicitly stated on this syllabus.

**DISABILITY ACCOMMODATIONS:**

*The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at <http://www.unt.edu/oda>. You may also contact them by phone at 940.565.4323.*

**NOTES:**

This syllabus is subject to change as the instructor deems necessary. Any/all changes will be announced during regular class time. It is the responsibility of the student to attend each scheduled class to be informed of these changes.

**Academic Dishonesty:**

Cheating on final exams, on in-class tests, or on quizzes is a serious breach of academic standards and will be punished severely and generally result in a student failing the course. All work done on in-class exams and quizzes must represent only the student's own work, unless otherwise stated in the directions. See <http://vpaa.unt.edu/academic-integrity.htm> for details on academic integrity at UNT.

**Attendance:**

Class attendance is mandatory. Missing any portion of class (lecture or recitation) is considered absence from the entire class. My email may NOT be used in lieu of attendance. Students are responsible for all information given in class, regardless of his/her attendance. This includes knowing exam dates and homework assignments. If you miss a class, it is your responsibility to learn of all the important stuff you missed. Exchange contact information with several members of your class so that you will have multiple sources contact in case of a personal emergency. **Five** or more absences in lecture constitute non-attendance; for which a student may be administratively dropped for non-attendance with a grade of WF.

Attendance is also a required component of the recitation portion of this course. To receive credit for attendance you must arrive to the recitation by the start time and work the entirety of the recitation time in your math platform. Missing any portion of the recitation may be considered as absence for the entire recitation. Two or more absences in recitation constitute non-attendance; in which a student may be administratively dropped for non-attendance.

**Classroom Etiquette:**

Appropriate behavior is expected of all students taking this course. Arrive to class promptly and do not leave until the scheduled ending time of the class. If you must arrive late or leave early, please do so as discreetly as possible and take a seat near an exit. Turn off all non-medical electronic devices such as pagers, cell phones, laptops, etc. Take off the headphones. Do not read newspaper or work on unrelated assignments during class. I prefer that you not eat during class. You will be asked to leave the classroom if you access an electronic messaging device during class AND it will be counted as an absence.

**Course Requirements:**

As a general rule, average college students are expected to spend a minimum of two (2) hours per week for each one (1) hour of class working on the course to be able to successfully learn the content. If you are an “average” college-level learner, you should spend at least eight (8) hours per week if you expect to successfully complete this course. Adjust for more (or less) hours to accommodate your learning level.

**Drop Policy:**

If the student is unable to complete this course, it is his/her responsibility to formally withdraw from the course. The student may do so through the Registrar’s Office after obtaining the necessary signatures. Consents for withdrawal and all necessary signatures may be obtained in the Math department Placement Testing Center, GAB 443. The last day to drop a class with an automatic “W” is **Friday, Oct.7**. The last day to drop a class with “W” or “WF” is **Saturday, Nov.5**. “WF” is averaged into your GPA as an “F.” If the student does not properly withdraw from the course but stops attending, s/he will receive a performance grade, usually an F.

**Exams:** Three in-class exams are planned for this semester. Count your points on exams to be sure the totals are correct. Keep a record of all your scores. If you think that your work has been graded incorrectly, ask for a re-grade immediately after receiving the exam back. Your entire exam will then be re-graded, and you may lose points or gain points on any problem, including but not limited to the problem you ask about. Check your written exam grade with the grade posted in MSL to ensure that they are the same. Average of the three exams is **45%** of course grade.

**Content and dates** are tentatively scheduled as follows:

**EXAM 1:** September 29, 2016... (Chapters 1 – 3)

**EXAM 2:** November 3, 2016 (Chapters 4 – 6)

**EXAM 3:** December 1, 2016 (Chapters 7 – 9)

The final exam is comprehensive and REQUIRED and it counts **15%** of course grade.

**All exams will be administered in the Sage Hall Testing Center (Sage C330).**

**Exam Etiquette:**

- Place all papers, textbook, notes, etc. in a backpack or a book bag and close it securely.
- Turn off all electronic devices (unless medically necessary), this includes cell phones, pagers, etc.
- Handling of ANY such electronic devices during an exam will be construed as cheating (receiving unauthorized aid) and may result in a zero for that exam.
- Do not wear HATS or CAPS during exams.
- Do not share any materials during an exam. This includes, but is not limited to pencils, erasers, calculators, etc.
- Only approved calculators during an exam. You may have both a scientific and a graphing calculator. It is your responsibility to know how to work the calculator(s) you bring to a test.
- Have only the exam, pencil, eraser and calculator out during an exam. Plenty of work-space is provided on the actual exam. You will not be permitted to have any scratch paper during an exam.

**Final Exam:**

Your final exam will be administered in the Sage Hall Testing Center (Sage C330). The date and time are posted online at: <http://registrar.unt.edu/exams/final-exam-schedule/fall> for UNT 2016 FALL final exams schedule. Look up the time and record it for your academic planning. The final exam is comprehensive and is **15%** of the course grade.

**Grade Assignment:**

The student course grade is assigned according to the evaluation criteria and grading assignment stated on this syllabus. The grade is completely objective and is determined solely by student performance on each of the evaluation criteria (in-class exam grades, on-line homework & Quizzes, the final exam and recitation portion). Grades reflect your proficiency of the course content as you have demonstrated them on the evaluation criteria. Do not expect extra credit work or bonus grade assignments. Please take special note that “extra credit,” “hiring tutors,” “needing it for scholarship,” “I didn’t know what was required,” “tried really hard,” etc. are NOT any part of the grade assignment process.

**Homework:**

Most of your homework assignments will be administered through MyStatLab (MSL); MSL is the required online

course delivery platform. All regular online homework assignments for the entire term are already set. You will typically have 4 or 5 MSL online **Homework** assignments due on **Friday or Sunday by 11:59pm each week** and one **Exam Review HW** due on the day by **11:59pm** before each Exam date (Calendar attached). I suggest you complete each section assignment in the middle of week when possible. You have five (5) attempts per problem-type for each online problem in MSL. Using the “Help Me Solve It” feature uses one attempt. Use the attempts carefully so that you can earn a 100% on each assignment.

**NO LATE HOMEWORK** will be accepted for any reason whatsoever. A grade of zero will be assigned to any homework assignment not completed online and submitted by the due date and time. Specifically, due dates will NOT be extended for any reason. NO EXCEPTIONS. If you are prone to circumstances that affect your ability to meet your obligations, work ahead. Technical difficulty, including loss of internet access, is not an excuse for not completing assigned work. During dead week three (3) Exam Review homework assignments will be reopened for Final Review.

#### **Quizzes (Online):**

You will have 10 MSL online **Quizzes** (one for each chapter) will be **due shortly after the final homework assignment for each chapter** by 11:59pm as specified on calendar. You have TWO (2) attempts and there is no help feature to use. Use the attempts carefully so that you can earn a 100% on each assignment. All MSL quizzes for the term are immediately available; due dates and times for all quizzes are posted in MSL.

#### **Recitation/Lab:**

Math 1680 has a required recitation component that meets every week in GAB 511. The portion of class will address algebra skills review and review lecture content by using “Learning Catalytics”. Attendance is a required and graded component of the recitation. You have thirteen (13) “Learning Catalytics” sessions administered through MSL, which comprise 10% of your course grade. Read and understand this syllabus and the syllabus for your recitation section to ensure you understand course expectations. Two or more absences from just the recitation portion constitute nonattendance and you may be administratively dropped from the ENTIRE course with a WF.

Beginning **Monday, Nov. 14**, a student that qualifies may request a grade of “I”, incomplete. An “I” is a non-punitive grade given only if ALL three of the following criteria are satisfied. They are:

- 1) The student is passing the course;
- 2) The student has a justifiable (and verifiable) reason why the work cannot be completed as scheduled;
- 3) The student arranges with the instructor to complete the work within one academic year.

#### **Learning Objectives:**

Upon successful completion of Elementary Probability and Statistics, the student will be able to:

- Explain the use of data collection and statistics as tools to reach appropriate conclusions.
- Recognize, examine and interpret the basic principles of describing and presenting data.
- Compute and interpret probabilities using the rules of probabilities and combinations.
- Explain the role of probability in statistics.
- Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
- Describe and compute confidence intervals.
- Analyze association of data and calculate the correlation coefficient
- Solve linear regression and use the independent variable to predict the dependent variable.
- Perform one-proportion z test by using statistical methods.

#### **Make-up Exam Policy:**

**NO MAKE-UP EXAMS WILL BE GIVEN.** An exam may be taken **prior** to the scheduled date. You must request for this accommodation via email at least one week prior to day you wish to take the early exam. In the event of a schedule conflict with a university function, dental/physician’s appointment, wedding, formal, or whatever, the **student must take the test early**. If a student does not take a scheduled exam, a zero will be recorded for that exam and an academic alert notice will be filed.

There are three in-class exams. If your final exam score is higher than one of your in-class exam scores, then that in-class exam grade will be replaced with final exam grade. If you miss an in-class exam, a zero will be recorded for that exam grade and your final exam score will replace that one zero. If you receive a zero for cheating on an exam,

the final exam score will NOT replace that zero. Again, **NO MAKE-UP EXAMS WILL BE GIVEN FOR ANY REASON.**

**Progress Reports:**

Students needing progress reports completed/signed for athletics, scholarships and/or any other organization must attend office hours to get them completed.

**Recommended Keys to Success/Expectations:**

Success in math classes requires a great deal of time and honest effort outside of class along with punctual attendance. You are expected to come to each class on time and stay the entire class. You are responsible for everything that happens in class. You should come to each lecture and come prepared. Spend an hour (or two) after each lecture reviewing the lesson and working on homework problems. Use the UNT Math Tutor Lab (GAB440); Join SI sessions; Form a learning group with a few classmates for accountability and meet with them regularly.

Math is not a spectator sport. You will not learn mathematics from watching the instructor or friends display ideas and solve problems. You must try the problems, finish problems, ask questions, correct your mistakes, put concepts in your own words, and practice, practice, practice!! An increase in effort usually results in increase in success.

**Student Behavior:**

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior\* will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at [www.unt.edu/csrr](http://www.unt.edu/csrr). \*Texting or using any electronic messaging devices during class is not acceptable behavior and is grounds for disciplinary action.

**Statement regarding use of email and attendance:**

- Email may not be used in lieu of attendance. It is primarily for emergencies. YOU MUST ATTEND class to obtain course-related information. Content related questions will be addressed during office hours and scheduled appointments.
- I will only reply to email sent from UNT email accounts. You must include your full name, course name, number and section number in the subject header of your email.
- YOU are responsible for attending the required class meetings as stated in the course schedule guide.

**Web Access:**

Students must use MyStatsLab website, you will access your math course platform from within Blackboard Learn (<http://learn.unt.edu>).

Math1680 list of Chapters to be taught from the online course e-book by Sullivan: Chapters 1 – 10.

## **If you have technical difficulties with MyStatslab, call 1-800-677-6337**

### **MyStatslab Homework Tips**

- Find a relatively quiet, distraction-free place with internet connection. Commit to NOT surfing the internet while working on math (or any assignment for that matter).
- Keep a notebook for online assignments, both homework and quizzes. Write problems just as you would if the homework is submitted on paper.
- You are given five attempts per problem-type. Use the attempts carefully so that you can earn 100% for each MSL homework assignment.
- MyStatsLab has very useful features, including viewing videos, ActivStat animations and a feature called the, “Help Me Solve It.” When you use the Help Me Solve It feature be sure to write out each of the guided steps and explanations.
- Using the “Help Me Solve It” feature uses one of your five attempts.
- You can circumvent using up an attempt when using the “Help Me Solve It” feature by going to the “Study Plan” file.
- Get help from tutors in the UNT Math Tutor Lab (GAB 440); SI sessions and from the “Help Me Solve It” feature in MSL; Better continue to rework a similar exercise until you can do the exercises without any assistance. Only then will be ready to do well on an exam on that material.
- Prepare for tests by reviewing notes, writing your personal learning notes, reworking homework problems, and revisiting Chapter Quiz questions and then try “Exam review HW”. MyStatsLab also has a Study Plan option to help you focus your learning needs. Use it also to augment your learning process.
- Start preparing and reviewing for the final exam the first week of classes. Revisit previous homework assignments, review completed in-class exams.

### **MyStatsLab Quizzes Tips**

- Find a relatively quiet, distraction-free place with internet connection. Commit to NOT surfing the internet while working on math (or any assignment for that matter).
- Keep a notebook for online assignments, both homework and Quizzes. Write problems just as you would if the homework is submitted on paper.
- You are given two (2) complete attempts per quiz. No help sources available during a quiz, the highest score counts. Allow yourself time to take advantage of all attempts. Use the attempts carefully so that you can earn 100% for each MSL quiz.
- Read the online textbook chapter that corresponds to the quiz first, prior to attempting the quiz.
- Write each quiz question and your answer. If you don’t know the correct answer, write all answer choices given.
- Submit and review your Quiz results. If you missed any questions; read your online textbook again for the correct answer and write the correct answer(s) in your notebook.
- Retake the quiz.
- Start preparing and reviewing for the final exam the first week of classes. Revisit previous homework assignments, review completed in-class exams.

**Keep a positive attitude about your ability to succeed and work diligently towards that goal.**

# FALL 2016 MATH 1680 TTR Lecture Calendar

HW DUE 11:59PM		QUIZ DUE 11:59PM			
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	8/29  FIRST DAY OF CLASS	8/30  Syllabus & MSL, 1.1, 1.2	8/31	9/1 1.3, 1.4	9/2 Last day to add or swap a class
9/4 MLP Orientation HW 1.1, 1.2, 1.3, 1.4	9/5 LABOR DAY University closed	9/6 MATH LAB OPENS for the semester 1.5, 1.6	9/7	9/8 2.1, 2.2	9/9
9/11 HW 1.5, 1.6, 2.1, 2.2	9/12 Census	9/13 Beginning this date a student who wishes to drop a course must first receive written consent of the instructor 2.3, 2.4	9/14  QUIZ 1	9/15 3.1, 3.2	9/16
9/18 HW 2.3, 2.4, 3.1, 3.2	9/19	9/20 3.3, 3.4	9/21  QUIZ 2	9/22 3.5	9/23
9/25 HW 3.3, 3.4, 3.5	9/26	9/27 Exam 1 Review (CH1-CH3)	9/28  QUIZ 3  REVIEW HW1 (CH1-CH3)	9/29 Exam 1 (Ch1-Ch3)	9/30
10/2	10/3	10/4 4.1, 4.2	10/5	10/6 4.3, 4.4	10/7 Last day to drop with an automatic "W"
10/9 HW 4.1, 4.2, 4.3, 4.4	10/10 Beginning this date instructor may drop students with grade of "WF" for nonattendance	10/11 5.1, 5.2	10/12  QUIZ 4	10/13 5.3, 5.4	10/14
10/16 HW 5.1, 5.2, 5.3, 5.4	10/17	10/18 5.5, 5.6	10/19	10/20 5.7	10/21 MIDSEMESTER
10/23 HW 5.5, 5.6, 5.7	10/24	10/25 6.1, 6.2	10/26  QUIZ 5 Exam 2 Review (Ch4-Ch6)	10/27 6.3, 6.4	10/28
10/30 HW 6.1, 6.2, 6.3	10/31	11/1 Exam 2 Review (Ch4-Ch6)	11/2  QUIZ 6	11/3 Exam 2 (Ch4-Ch6)	11/4

6.4			Review HW2 (Ch4-Ch6)		
11/6	11/7 Last day to drop a course with consent of instructor with a W or WF	11/8 7.1, 7.2	11/9	11/10 7.3, 7.4	11/11
11/13	11/14 Beginning this date a student who qualifies may request a grade of "I"	11/15 8.1, 8.2	11/16 QUIZ 7	11/17 9.1, 9.2, 9.3 (optional)	11/18
HW 7.1, 7.2, 7.3, 7.4					
11/20	11/21	11/22 10.1, 10.2	11/23 Last day for an instructor to drop a student with a grade of "WF" for non- attendance	11/24 Thanksgiving University Closed	11/25 Thanksgiving University Closed
HW 8.1, 8.2, 9.1, 9.2, 9.3 (optional)			QUIZ 8		
11/27	11/28	11/29 Exam 3 Review (Ch7-Ch9)	11/30 QUIZ 9 Review HW 3 (Ch7-Ch9)	12/1 Exam 3 (Ch7-Ch9)	12/2
				3 Review HW are reopening (12/1 6:00am—12/9 11:59pm)	
				Project is opening (12/1 6:00am—12/9 11:59pm)	
12/4	12/5	12/6 10.3, 10.4 (optional)	12/7 PRE-FINALS DAY	12/8 PRE-FINALS DAY	12/9
HW 10.1, 10.2			HW 10.3, 10.4 (optional)	Last Class Day Final Exam Review	READING DAY NO CLASSES 4:00 pm - MATH LAB CLOSES for the semester
				QUIZ 10	
	3 Review HW are reopening (12/1 6:00am—12/9 11:59pm)				
	Project is opening (12/1 6:00am—12/9 11:59pm)				
12/11	12/12 FINALS WEEK	12/13 FINALS WEEK	12/14 FINALS WEEK	12/15 FINALS WEEK	12/16 FINALS WEEK TERM ENDS



CHAPTER 1	Data collection	
1.1	Introduction to the Practice of Statistics	
1.2	Observational Studies versus Designed Experiments	
1.3	Simple Random Sampling	
1.4	Other Effective Sampling Methods	
1.5	Bias in Sampling	
1.6	The Design of Experiments	
CHAPTER 2	Organizing and Summarizing Data	
2.1	Organizing Qualitative Data	
2.2	Organizing Quantitative Data: The Popular Displays	
2.3	Additional Displays of Quantitative Data	
2.4	Graphical Misrepresentations of Data	
CHAPTER 3	Numerically Summarizing Data	127
3.1	Measures of Central Tendency	128
3.2	Measures of Dispersion	141
3.3	Measures of Central Tendency and Dispersion from Grouped Data	158
3.4	Measures of Position and Outliers	164
3.5	The Five-Number Summary and Boxplots	174
CHAPTER 4	Describing the Relation between Two Variables	
4.1	Scatter Diagrams and Correlation	191
4.2	Least-Squares Regression	
4.3	Diagnostics on the Least-Squares Regression line	
4.4	Contingency Tables and Association	
CHAPTER 5	Probability	
5.1	Probability Rules	
5.2	The Addition Rule and Complements	
5.3	Independence and the Multiplication Rule	
5.4	Conditional Probability and the General Multiplication Rule	
5.5	Counting Techniques	
5.6	Putting it Together: Which Method Do I Use?	
5.7	Bayes's Rule (on CD)	
CHAPTER 6	Discrete Probability Distributions	
6.1	Discrete Random Variables	
6.2	The Binomial Probability Distribution	
6.3	The Poisson Probability Distribution (on CD)	
6.4	The Hypergeometric Probability Distribution (on CD)	
CHAPTER 7	The Normal Probability Distribution	
7.1	Properties of the Normal Distribution	
7.2	Applications of the Normal Distribution	
7.3	Assessing Normality	
7.4	The Normal Approximation to the Binomial Probability Distribution	
CHAPTER 8	Sampling Distributions	
8.1	Distribution of the Sample Mean	
8.2	Distribution of the Sample Proportion	
CHAPTER 9	Estimating the Value of a Parameter	
9.1	Estimating a Population Proportion	
9.2	Estimating a Population Mean	
9.3	Estimating a Population Standard Deviation (optional)	
CHAPTER 10	Hypothesis Tests Regarding a Parameter	
10.1	The Language of Hypothesis Testing	
10.2	Hypothesis Tests for a Population Proportion	
10.3	Hypothesis Tests for a Population Mean	
10.4	Hypothesis Tests for a Population Standard Deviation (optional)	