DSCI 2710-090, Data Description and Analysis, Summer 2013

CLASS (DAY/TIME):   Section 090, TR 10:00 am – 1:50 pm, Founders (Dal2) 338
INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: Founders (Dal2) 236   **E-MAIL:** dfriesen@unt.edu
OFFICE PHONE: 972-338-1805   **OFFICE HOURS:** TR 2-5 pm
      M noon 4 pm
      And by Appt.

REQUIRED MATERIALS:
1. Business Statistics: Analytics for Decision Making (**SOFT COVER**), Kvanli / Pavur / Keeling. Cengage Learning. 2010. ISBN-13: 978-1-111-40020-0.
   Comment: There are several versions of this textbook that are available. You want the most recent one. It will work for both DSCI 2710 and DSCI 3710.
2. Adventures in Statistics, by James S. Hawkes of Hawkes Learning.
   Note: This software is required to complete the assignments that comprise a substantial part of your grade. An individual copy **must be purchased** to obtain the certificate that allows logging into this software whether running it at home or in one of the campus computer labs.

GOALS: At the end of the course, you should
1. have an increased understanding of the use of statistics in business decision making,
2. be better able to select the appropriate statistical tool/methodology to aid in business decision making,
3. be able to use a computer spreadsheet program such as Excel to describe and analyze numerical data,
4. be better able to communicate in the language of applied business statistics, and
5. be able to manipulate simple statistical formulae to solve non-verbal (numerical) problems.

EVALUATION
To demonstrate your ability to use quantitative techniques in business, you will answer exam questions based on short cases, presented in written language. In addition, you will work on case studies that require you to use the Excel spreadsheet program to analyze and describe real-world business data. By simulating real business problems and requiring you to communicate in writing through the language of statistics, these evaluation instruments will reinforce the course objectives.

GENERAL COMMENTS:
1. *Doing the assignments is essential to succeeding in this course*. For optimal results, you should read every textbook problem. You should work as many of the textbook problems as is possible. In addition to the problems in the textbook, the Adventures in Statistics modules are intended to assist you in better structuring the learning time you spend on practice problems. Many of the textbook practice problems have answers in the back of the textbook. You are encouraged to keep up with the assignments.

2. You should not hesitate to ask questions in class. Usually someone else has the same question.

3.   Regular and punctual attendance for the **full** period of each class is expected. Absences and tardiness are likely to cause you to miss the presentation of significant material; this generally results in a lower grade.

4.   If you drop the course, you have the final responsibility for seeing that you are properly withdrawn or dropped before the scheduled last drop day. Anyone who stops attending class should execute the drop procedure since failure to do so may result in a grade of "F" which cannot be changed.   Dates of drop deadlines and exams, etc., are published in the university catalog and schedule of classes. Please be sure that you stay informed about these dates.

5.   Grades are not provided via telephone.

DSCI 2710 COURSE POLICIES

1. Practice problems are discussed in class. They come from the end-of-chapter / end-of-section problems. Understanding these problems is **critical** to learning the material well enough to complete exams within the allotted time. **You are expected to read and understand** the relevant sections of the textbook. ***All*** reading material is testable, even if it is not emphasized in the lecture.

2. **Excel Assignments:** Three computer exercises using Excel are assigned. Output from these assignments will be used to complete on-line quizzes via Hawkes Learning System; these Web Tests are an important part of the course grade.

3. **Hawkes Tutorial Exercises:** Eight tutorial exercises using the **Hawkes Learning modules** are assigned. These are an important part of the course grade. You will not submit anything since the modules must be certified online. Detailed information on certifying Hawkes modules is presented at the end of this syllabus and on the course web site.

4. **Exams:** There will be three in-class exams. For each exam, you will be allowed to use a calculator, a formula sheet and tables. All exams are open book but *__NOT__* open notes.

        Point Allocation:
        Exam #1   200
        Exam #2   200
        Exam #3   200
        Tutorials (Hawkes Learning: Bus. Statistics) (8)   140   (17.5 points each)
        Excel Assignments (3)   60   (20 points each)

                                    TOTAL   800

5. **Grading:**   Course average based on all components
                90+ = A   80+ = B
                70+ = C   60+ = D   Below 60   = F

                I always round your scores UP. An effect of this policy is that a student with a high "D" class score might be assigned a grade of "C" **IF** the student has completed **ALL** assigned Hawkes modules and Web Tests.

6. Students always ask about "**extra-credit.**" Here are the **ONLY** options for extra-credit work.
   - Have no more than 1 absence during 5w1. Worth 2% of the course points.
   - Complete one or more of the following Hawkes modules: 5.3, 6.2, 7.3, 13.1. Each of these four modules is worth 1% of the course points.
   - **IF** the SETE is offered, I will award 2% of the course points, **PROVIDED** that the response rate exceeds 85% of enrollment.

7. If you wish to register a complaint, you should first discuss your complaint with your instructor. To further pursue your complaint, contact Dr. J. Wong at 972-338-1835, Office 315 in Founders Hall (Dallas Building 2).

8. If the instructor deems that a situation warrants a make-up exam, the final exam could be counted twice instead of giving a make-up exam. The course grade of "I" is not given except for rare and very unusual emergencies, as per university guidelines.

9. The University policy on Code of Conduct and Ethics is contained in the Student Guidebook. You are responsible for knowing the information contained in this and all other official University publications.

10. Students with Disabilities: The Division of Urban and Professional Studies complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disability. If you have an established disability as defined in the "Act" and would like to request accommodation, please visit the office of Student Life.

DSCI 2710 SYLLABUS—Summer 2013

The syllabus below is a tentative outline for the semester. It is meant to be a guide and several items are subject to change. Certain topics may be stressed more or less than indicated.

Date	Topics	Sections in Text
6/4 (T)	Syllabus	
	A First Look at Statistics	Chap. 1.1 through 1.6
	Descriptive Graphs	Chap. 2.1 – 2.6
	Hawkes: Request Password	
6/6 (R)	Descriptive Measures	Chap. 3.1 - 3.6
	Hawkes: Enroll in System	
6/11 (T)	Time Series Analysis	Chap. 4.1 - 4.7
	Review for Exam 1	
6/13 (R)	**Exam #1 -- Descriptive Statistics and Time Series Ch 1-4**	
	Probability Concepts	Chap. 5.1 - 5.4
	Excel Assignment #1 due.	

6/18 (T)	Discrete Prob. Distribution	Chap. 6.1 - 6.2
	Binomial Distribution	Chap. 6.3
	Poisson Distribution	Chap. 6.4

6/20 (R)	Continuous Prob. Dist.	Chap. 7.1 - 7.4
	The Normal Curve	Chap. 7.5 - 7.7
	Review for Exam #2	
	Excel Assignment #2 due	

| 6/25 (T) | **Exam #2   -- Chapters 5-7** | |
| | Inference & Sampling | Chap. 8.1 - 8.2 |

6/27 (R)	Confidence Intervals	
	for the mean (σ known)	Chap 8.3
	for the mean (σ unknown)	Chap. 8.4
	Determining Sample Size	Chap. 8.5

7/2 (T)	Quality Improvement	9.1 – 9.4
	Control Charts for Variables Data	9.5
	Control Charts for Attribute Data	9.6
	Process Capability	9.7

7/5 (F)   Review for Exam #3
Exam #3 – Chapters 8 and 9.
Excel Assignment #3 due

Adventures in Business Statistics (Hawkes Modules)

	Module	Title	Due by Date (by Midnight)
1	1.2	Level of Measurement	7/5
2	3.1	Measures of Center	7/5
3	5.1	Discrete Random Variables	7/5
4	5.2	Binomial Word Problems	7/5
5	6.4	Find the Value of Z	7/5
6	6.3	The Normal Distribution	7/5
7	8.4	Estimation (Means) Sigma Unknown	7/5
8	13.4	Mean Charts using Range	7/5

NOTE
The next page of the syllabus contains instructions for registering a Hawkes Adventures in Business Statistics (AIBS) module. All modules must be registered online. After completing a module and registering it, you should check your AIBS progress report. **You should print a copy of the progress report every time you complete a module**. Progress reports showing completion of a module may be used if the system errs in recording a module. No assignments are accepted after 7/5 midnight.

DSCI 2710 web site

http://www.cob.unt.edu/itds/courses/dsci2710/

Excel Assignments
Assignments will be distributed and discussed in class.

Notes on Excel Assignments:
- Excel Assignments are assessed using the Web Quiz feature of the Hawkes Learning System.
- You will need your excel assignment outputs, your text, any necessary tables, and your calculator to successfully take the assessment quiz for each assignment.

Taking Online Excel Quizzes
Get into the Hawkes software as usual (as though you were going to complete one of the 7 modules). At the bottom of the page, select **Web Test.** This will open the Web Test area. Select **Take Test** on the left side of the page. When a new window opens, select **Assigned Test** and **OK.** From the **Select a Test** menu, you can select the appropriate quiz. For more information, take a look at the Getting Started PowerPoint file [(6) Taking an Excel Quiz.ppt], found on the course website.

Notes
(1) These quizzes will not open until the scheduled time in the syllabus or as announced in class. Once you select the **Begin Test** button, the clock is running for the assigned time allotted for the quiz. **If you log off before completing the quiz, you will receive either a -0- or partial credit for the portion you did complete.** Therefore, get everything you need (e.g., hard copy of the Excel spreadsheets, calculator, tables, textbook) **BEFORE** opening the quiz.
(2) Be sure to turn off your firewall (if you have one) before starting an Excel quiz.

Notes on Hawkes:

To **_actually run_** the software you must purchase an access code. For those of you with a Visa or MasterCard, follow Option 1. If you don't have such a card, follow Option2.

Option 1: Go to http://www.hawkeslearning.com/webcodeform/makacode.asp and select **purchase an Access Code online**. Select **business statistics** in the Hawkes Learning Systems Title box. Follow the screen prompts).

Option 2: Purchase the box containing this software in the UNT Bookstore or wherever this software is sold on campus. This box contains the same CD given to you in class. On the back of the tear-off strip attached to the front cover is a code that is necessary in Step 3 (below). Obtain your access code by following these steps:

> **Obtaining your Adventures code:** Log on to www.quantsystems.com, click on **get your access code**, and follow the instructions for **I have my License Number** by entering your coupon information. You will receive your code within minutes! If there is a 15 minute delay in receiving your code, contact Hawkes Learning at 800-426-9538 and they will assist you. **Be sure to enter your name exactly as the registrar at UNT has your name (e.g., no nicknames, etc.).**

Certifying a Hawkes Module online

1. Either Save, Print, or Write down the Certification code you are given at the end of the lesson.

2. Go to **http://www.quantsystems.com/untdbstat**. Enter the Access Code using one of the methods listed on the page.

3. Select your instructor from the drop down menu (only have to do this once). The appropriate course ID is **UNTDBSTAT**.

4. Select your section from the drop down menu (only have to do this once).

5. The next page will be your online progress report. At the top of the page is a button labeled "Register a lesson certificate". Click on that button.

6. Select the lesson name that you registered in from the drop down list on the next page.

7. Either type in your Certification code or load it from where you saved it. Click the OK button.

8. You will be shown a page that tells you whether the Certification code was valid or not and will give you the opportunity to enter another certification code for a different lesson if the code was correct or for the same lesson if the code was incorrect.

9. After registering the code(s). you can view your progress in the class by clicking on the button labeled "Progress Report". **You should print this Progress Report every time you register a module.**

Remember: The course ID is UNTDBSTAT.