DSCI 3710-002, -003, -004 Syllabus: Spring 2016

CLASS (DAY/TIME):   **002 Monday** 7:00 – 9:50 pm in Room 241, Founders Hall (Dal #2)
                            003 Friday 11:00 am – 1:50 pm in Room 213, Founders Hall (Dal #2)
                            004 Tuesday 4:00 – 6:50 pm in Room 307, Founders Hall (Dal #2)

INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: Founders Hall 236   **PHONE:** 972.338.1805
E-MAIL: Daniel.friesen@untdallas.edu
OFFICE HRS: M: 1p - 6p, T: noon - 1 p, R: noon – 1p, 3 - 4p; F 2 - 4p, And by appt.

For online modules, students must choose Option 1 or Option 2 by January 29, 2016

Option 1:   **Textbook   Discovering Business Statistics**, Nottingham and Hawkes 2013
                ISBN 978-1-935782-87-2

Hawkes Learning Systems: Business Statistics, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*,* latest version. Note: This software is **required** to complete the assignments that a significant portion of your grade. **If you have already purchased an earlier version of it for DSCI 2710 or DSCI 3710, it is likely that you can use the same access code. In such case, you do _not_ need to purchase new HLS software**.

Option 2:   **Textbook**   Introductory Statistics by openstax college: a free "textbook" found at https://www.openstaxcollege.org/textbooks/introductory-statistics
You will want a physical or electronic copy of this text.

CEREGO StatsPL
Note: This software is required to complete the assignments that comprise a substantial part of your grade. The use of the system is free. You will receive an invitation via your school email account that you can use to access this software, should you choose this option.

GOALS: At the end of the course, students will
1. have an increased appreciation for the use of statistics in business decision making and understand how it is relevant for your future coursework and profession,
2. be better able to communicate in the language of applied business statistics,
3. be better able to select the appropriate statistical tool / methodology to aid in business decision making for your future course work and future profession,
4. be able to use appropriate statistical formulae to solve problems,
5. be more capable of using a computer to describe and analyze numerical data,
6. enhance your ability to use quantitative methods for business decision making.

TEACHING METHOD:
1. To better assist students in understanding the use of these methodologies in business, many of the class problems will be presented as simple business cases.
2. Students will observe and actively participate in the working of problems found in the textbook. In addition, students will be required to complete modules in either **Hawkes Learning Systems (HLS): Business Statistics** or **CEREGO**.
3. Students are required to participate in class discussions on statistical methodologies applied to non-trivial cases in various areas of business. The use of spreadsheets in analyzing business data will be stressed.
4. Students are required to complete Excel projects using either the Hawkes Learning System software or the CEREGO system.

EVALUATION:
To demonstrate their ability to use quantitative techniques in business, students will complete the software modules, analyze business data for class cases using Excel and answer exam questions based on short data analysis situations. Wherever possible, rather than being purely numerical, problems will be presented in written form. The exams and assigned work reinforce the course objectives by simulating real business problems that require students to communicate.

GENERAL COMMENTS
1. This is a challenging class due to the wide range of topics covered. Please allocate time appropriate to your goals for this course. Students should not hesitate to ask questions in class. Usually someone else has the same question, so, by asking in class everyone can benefit from the question.

2. Completing the modules is essential for success in this course. In fact, these assignments constitute a large portion of your grade in this course. I encourage you to keep up with the modules.

3. Regular and punctual attendance for each class is expected. Absences and tardiness are likely to cause you to miss the presentation of significant material and this may result in a lower grade. The mid-term exam or the quizzes may be missed only if you have a University-approved excuse. Whenever applicable, such an excuse is to be provided to the instructor in writing, as early as possible.

4. In case they wish to withdraw from/ drop the course, students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day. A student who stops attending class should execute the drop procedure since failure to do so will result in a grade of "F" which cannot be changed.

5. Students are requested not to telephone ANYONE to obtain their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:

1. **Syllabus Calendar:** The syllabus is a tentative outline for the semester. Items are subject to change. Certain topics may be stressed more or less than indicated. Exam dates are generally NOT changed.

2. **Modules:** Homework modules are assigned and should be completed by recommended dates. While only the modules (either Hawkes or CEREGO) and Quizzes on Excel cases are graded, **you are expected to read** and understand the relevant sections of your textbook. All reading material is testable, even if it is not emphasized in the lecture.

3. **Excel Cases:** Projects involving the use of **Excel** to analyze business data are assigned. These are an important part of the course grade that is graded via an online **Quiz** that is available in the HLS software using WEBTEST, or in BLACKBOARD for the CEREGO users.

4. No credit is awarded for any exercise completed after the last class day 5/12/2016.

5. **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final exam worth 200 points. If a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final can be used to substitute for the missed exam (as well as for the final exam). For each exam you will be allowed to use formula sheets, notes, textbooks, any calculator, and Tables (please provide your own individual copies of these items).

6. **Grading:** The 12 HLS modules are worth a total of 180 points (@ 15 points each); The 4 online Excel case quizzes are worth a total of 40 points (@ 10 points each); The in-class mid-term exam is worth 200 points, and the comprehensive final is worth 200 points.

   Point Allocation:
Mid-term Exam	200
Modules and Excel Quizzes (12*15 pts + 4*10 pts)	220
Final Exam	200
TOTAL:	620

   Letter Grades: 558+ = A   496+ = B
   434+ = C   372+ = D   Below 372 = F

SCHOOL and UNIVERSITY POLICIES
1. There is a prerequisite for this course: `Completion of` **`DSCI 2710`** `or equivalent with a grade of C or better.`
2. If you wish to register a complaint, you should first discuss your complaint with your instructor. If you wish to carry it further, contact Dr. K. Shumway (Dean of the Business School).
3. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines. <mark>If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used as a substitute for poor performance in class.</mark>
4. You are required to take all exams, unless a written medical excuse is provided. In that case, you should discuss alternative arrangements with your instructor.
5. Code of Conduct and Ethics: The policies for this course are consistent with those in the University of North Texas at Dallas Student Guidebook. You are responsible for familiarizing yourself with such information published by the University. All tests will contain the following statement to which you must agree: *On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.*
6. Students with Disabilities: The College of Business Administration 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 see your instructor as soon as possible. Office hours and phone number are shown at the top of this syllabus. The Student Services Coordinator is Cynthia Suarez.
7. Dates of drop deadlines, final exams, etc., are published in the university catalog and the schedule of classes. Please be sure you keep informed about these dates (and any change thereof).
8. **Grounds for Dismissal from the Course**
   If a student is caught cheating, s/he will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary as coordinated by the Office of Student Services.

DSCI 3710 – Topics   DBS = Discovering Business Statistics textbook
IS = Introductory Statistics textbook

Week	TOPICS	SECTIONS	CW, HW & ASSIGNM'TS
1/18	Course policies	syllabus	
1/25	Course Policies + DSCI 2710 Review	DBS: Ch 9 IS: Ch 8	
2/1	Hypothesis testing for population mean	DBS: 10.1-10.6 IS: 9.1-9.6	
2/8	Testing Hypotheses about proportions	DBS: 10.7 IS: 9.1-9.6	Download Excel #1

Week	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
2/15	Comparing Two Population Means	DBS: 11.1-11.2 IS: 10.1-10.2	Discuss Excel #1
2/22	Paired Differences	DSB: 11.3 IS: 10.4	Download Excel #2
	Comparing Two Population Prop's	DBS: 11.4 IS: 10.3	
2/29	Analysis of Variance	DBS: 12.1-12.4 IS: 13.1-13.3	Discuss Excel #2
3/7	**Mid-Term Review and Test**	**DBS: Chapters 10, 11, 12 IS: Chapters 9, 10, 13**	
3/14	**Spring Break**		
3/21	Test Debriefing Simple Linear Regression	DBS: 13.1-13.7 IS: 12.1-12.3, 12.5	
3/28	More Simple Linear Regression	DBS: 13.8-13.10 IS: handouts	
4/4	Multiple Regression	handouts	Download Excel #3
4/11	More Multiple Regression	handouts	Discuss Excel #3
4/18	Qualitative Independent Variables	handouts	
4/25	Multiple regression Review	handouts	Download Excel #4
5/2	Chi-Square Test	DBS: 15.1, 15.3 IS: 11.1, 11.3	Discuss Excel #4
	Review for Final Exam		

The Comprehensive Final Exam dates have not been determined as of this writing; they are known to be the week of 5/9.

The final day to submit module or quiz work is 5/12, midnight.

Option 1: HLS Modules

No.	DBS / Hawkes	CEREGO / IS Chapter-Section
1	10.4a Testing a Hypothesis about a Population Mean (Z-value)	The material is the same; however, there is no direct correspondence:
2	10.4b Testing a Hypothesis about a Population Mean (t-value)	
3	10.4c Testing a Hypothesis about a Population Mean (p-value)	9.1 Null and Alternative Hypotheses 9.3 Distribution Needed for Hypothesis Testing
4	10.7a Testing a Hypothesis about a Population Proportion (z-Value)	9.4 Rare Events, the Sample, Decision and Conclusion 9.5 Additional Information and Full Hypothesis Test Examples
5	11.1 Comparing two population means	10.2 Two Population Means with Known Standard Deviations
6	11.2 Comparing two population means: Small Samples, Sigma Unknown	10.1 Two Population Means with Unknown Standard Deviations
7	11.3 Paired Difference	10.4 Matched or Paired Samples
8	11.4 Comparing 2 population proportions	10.3 Comparing Two Independent Population Proportions
9	12.2-12.4 ANOVA	13.2 The F distribution an d F ratio
10	13.1-13.5 Fitting a Linear Model	12.1 Linear Equations
11	13.8 Regression Analysis	12.3 The Regression Equation
12	15.3 Chi-Square Test for Association Between Two Qualitative Variables	11.3 Test of Independence

If you certify but are unable to register a certification, come see me. No modules are accepted after 5/12 midnight.

Both Options—Quizzes: Printed analysis results are required for completion of online quiz on each Excel case. Your grade on the Excel case is based on the quiz: 4 x 10 pts. = 40 pts.

Number	Topic	Quiz Dates
Excel CASE 1	Comparing population Means (Finance)	by 5/12
Excel CASE 2	1 way ANOVA	by 5/12
Excel CASE 3	Multiple Regression	by 5/12
Excel CASE 4	Chi-Square test	by 5/12

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions and students need to use their own analysis printout to answer the questions.