

DSCI 3710 Syllabus: Spring 2015

CLASS (DAY/TIME): 090 Thursday 1:00 – 3:50 pm in Room 101, Founders Hall (Dal #2)
091 Monday 7:00 – 9:50 pm in Room 243, Founders Hall (Dal #2)

INSTRUCTOR: Daniel D. Friesen

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OFFICE HRS: Monday 11a – 6p; Tuesday 1 – 5p; Thursday 4 – 5p; And by appt.

1. **Textbook**

Discovering Business Statistics, Nottingham and Hawkes
2013 ISBN 978-1-935782-87-2

2. **Software**

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 are equivalent to a portion of one take home exam. **If you have already purchased an earlier version of it for DSCI 2710 or DSCI 3710, you can use the same access code. In such case, you do not need to purchase new HLS software.**

3. **Optional Textbook:**

Any Excel Primer – The Excel reference that you used in BCIS 2610 is fine.

GOALS: At the end of the course, students will

1. have an increased ability to use 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.

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 **Hawkes Learning Systems (HLS): Business Statistics**. This process is intended to help students make more efficient use of their time in learning how to solve problems.
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 tutorial assignments and computer projects.

EVALUATION:

To demonstrate their ability to use quantitative techniques in business, students will complete tutorials (**Hawkes Learning Systems: Business Statistics**), analyze real 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. Doing the assignments is essential for success in this course. In fact, the assignments constitute a large portion of your grade in this course. I encourage you to keep up with the homework and meet the submission deadlines.
2. 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.
3. 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 you wish to withdraw from/ drop the course, you have the final responsibility for seeing that you 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. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:

1. **Homework:** Homework is assigned and should be completed by recommended dates. While only the HLS tutorials (modules) and Quizzes on Excel cases are graded, **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 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 on the dates they are due.
3. **HLS Tutorial Exercises (module certifications):** Tutorial exercises using the **Hawkes Learning Systems (HLS): Business Statistics** are assigned. These form a significant part of the course. On completion of a module in a school lab, or at home, you should **save the HLS certification code to your disk**. If you are connected to the internet, the module will register automatically but check that you have received credit by going to your progress report. If there is any problem, notify me. No credit is awarded for any tutorial exercise completed after 5/14/2015 midnight.

To get your authorization code for using the HLS software, if you are a new purchaser of the software, you will need to visit HLS web site at <http://www.hawkeslearning.com/webcodeform/makacode.asp>. If you previously purchased the software and lost your code you should send an Email to HLS customer service at codes@hawkeslearning.com. It would be best to send your name as you had registered with HLS originally, the name of the software, the prior term instructor's name, the term and year of the purchase, and the course for which you made the purchase (DSCI2710 or DSCI3710).

4. **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. 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). A good set of previous exams can be found at http://www.cob.unt.edu/itds/courses/dsci3710/old_exams.html

Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest". 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 Excel Quiz, Practice HLS Quiz, or Online HLS Quiz. These Quizzes will not open until the dates posted in the progress report. 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore assemble everything you need BEFORE opening the Quiz.

5. **Grading:** The 14 HLS modules are worth a total of 140 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 60 points (@ 15 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
HLS Tutorials and Excel Quizzes (14*10 pts + 4*15 pts)	200
Final Exam	<u>200</u>
TOTAL:	600

Letter Grades:	540+ = A	480+ = B	
	420+ = C	360+ = D	Below 360 = F

School of Business and UNIVERSITY POLICIES

- To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
 - A 2.70 grade point average
 - Completion of 45 hours of the pre-business course work,
 - Completion of **DSCI 2710** or equivalent with a grade of C or better. In addition, students are required to have completed: Accounting 2020 and 2030 with grade "C" or better, and Economics 1100
- 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. Karen Shumway (Dean of the School of Business).
3. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines. **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.**
 4. You are required to take all exams, unless a written medical excuse is provided. In that case, you should discuss the 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 Code of Student Conduct (7.002) and Code of Academic Integrity (7.003). 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. If you have an established disability as defined in the "Act" and would like to request accommodation, please contact the Office of Student Affairs—Disability Services. The coordinator is Dr. Jamaica Chapple.
 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**
A student can be dismissed from the course with a grade of "WF" for reasons of unsatisfactory progress. If a student is suspected of unsatisfactory progress, the instructor will first issue a warning to the student, along with the procedure for remediation. If a student is caught cheating, s/he will be immediately removed from the class with a "WF" grade.

DSCI 3710 – Topics

The syllabus is a tentative outline for the semester. It is meant to be a guide and items are subject to change. Exams and quizzes may be moved to better accommodate any changes in class pace. Certain topics may be stressed more or less than indicated.

HLS – HLS: Business Statistics tutorials (In the listing below HT stands for Hypothesis Testing.)

<u>Week Beginning</u>	<u>TOPICS</u>	<u>SECTIONS</u>	<u>CW, HW & ASSIGNM'TS</u>
January 19	Special OUT-OF-CLASS Assignment		
January 26	Course policies Brief DSCI 2710 Review	syllabus ch 1 - 9	obtain code Download Excel #1
February 2	Hypothesis testing for population mean	10.1-10.6	
February 9	Testing Hypotheses about proportions And variances	10.7-10.8	

<u>Week Beginning</u>	<u>TOPICS</u>	<u>SECTIONS</u>	<u>CW, HW & ASSIGNMENTS</u>
February 16	Comparing Two Population Means	11.1-11.2	Discuss Excel #1
February 23	Paired Differences Comparing Two Pop. Proportions	11.3 11.4	Download Excel #2
March 2	Analysis of Variance	12.1-12.4	Discuss Excel #2
March 9	Mid-Term Review and Test	Chapters 10, 11, 12	
March 16	Spring Break		
March 23	Test Debriefing Simple Linear Regression	13.1-13.7	
March 30	More Simple Linear Regression	13.8-13.10	
April 6	Multiple Regression	14.1-14.3	Download Excel #3
April 13	More Multiple Regression	14.4-14.6	Discuss Excel #3
April 20	Qualitative Independent Variables + Pitfalls	14.7-14.8	Download Excel #4
April 27	Chi-Square Test for Association	15.1 and 15.3	Discuss Excel #4
May 4	Review for Final Exam		
Finals Week	The Comprehensive Final Exam for DSCI3710-090 will be held on Thursday, May 14, from 1:00 pm to 3:00 pm, for Section 090 Monday, May 11, from 7:30 pm to 9:30 pm, for Section 091		

Online registration due dates for the HLS Modules

Registrations due by 11:59 p.m. on 5/14 midnight (but earlier is better): 14 x 10 pts. = 140 pts.

<u>No.</u>	<u>Module</u>	
1	10.4a	Testing a Hypothesis about a Population Mean (Z-value)
2	10.4b	Testing a Hypothesis about a Population Mean (t-value)
3	10.4c	Testing a Hypothesis about a Population Mean (p-value)
4	10.7a	Testing a Hypothesis about a Population Proportion (z-Value)
5	10.7b	Testing a Hypothesis about a Population Proportion (p-value)
6	11.1	Comparing two population means
7	11.2	Comparing two population means: Small Samples, Sigma Unknown
8	11.3	Paired Difference
9	11.4	Comparing 2 population proportions
10	12.2-12.4	ANOVA
11	13.1-13.5	Fitting a Linear Model
12	13.8	Regression Analysis
13	14.5a	Inference Concerning the Multiple Regression Model and its Coefficients
14	14.5b	ANOVA Regression
15	14.7	Models with Qualitative Independent Variables
16	15.3	Chi-Square Test for Association Between Two Qualitative Variables

Note that there are 16 modules specified; however, only 14 are required. If you do all 16, the extra modules will be counted as extra credit. If you certify but are unable to register a certification, notify me. No modules are accepted after 5/14 midnight.

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 15 pts. = 60 pts.

<u>No</u>	<u>Topic</u>	<u>Quiz Dates</u>
Excel CASE 1	Comparing population Means	by
Excel CASE 2	1 way ANOVA	by
Excel CASE 4	Multiple Regression	by
Excel CASE 3	Chi-Square test	by

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.