DSCI 3710, Fall 2006 - Syllabus

CLASS (DAY/TIME): Section 090 - Tuesday 06:00 pm – 8:50 pm, Room 223
INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: 235F   **PHONE:** 972-780-3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: 3 pm – 6 pm MTWR

REQUIRED BOOKS & SOFTWARE

1. **Introduction to Business Statistics, 6e – paperback copy with Quality Control in the appendix or Concise Managerial Statistics – hardbound copy**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, Fall 2006 version*. Note: The software listed above is required to complete the assignments that are equivalent to a portion of one take home exam but if you already purchased this for DSCI 2710 or DSCI 3710 you can use the same code. You do not need to purchase new HLS software. Individual copies must be purchased to obtain the module certifications and take the online WEBTEST quizzes.

Optional Books:
1. Study Guide to Introduction to Business Statistics, (6th edition paperback)
2. Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD

1. Students are encouraged to pay attention to commercials and news items in print, as well as audiovisual media to become aware of the wide use of statistics in our daily lives. 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 the tutorials (**Hawkes Learning Systems: Business Statistics**), analyze real business data for class projects and take a quiz on the project (**Excel**), and answer exam questions based on short cases. Wherever possible, rather than being purely numerical, problems will be presented in word format. 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. Students are encouraged to keep up with the homework problems and check the answers provided in the back of the textbook. In fact, the assignments constitute a large portion of your grade in this course.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone the ITDS department for their final grade in the course. Anyone wishing to know his or her final grade early must provide the instructor with a self-addressed stamped envelope.

DSCI 3710 COURSE- SPECIFIC POLICIES

1. **Homework:** Homework is assigned and should be completed when due. While, only the HLS modules (tutorials) and **Excel** projects 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 Computer Exercises:** 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. **Late computer exercises are accepted by the next class period after the quiz but are hand graded and have a 50% penalty**. Thereafter, the assignments receive no credit.

3. **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS**) are assigned. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On completion of a module in a COBA 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTDBSTAT/ , also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Got the DSCI3710 and selcte Course Website >)

   Late submissions receive only 50% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).*** See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is one in-class mid-term exam worth 200 points; the 16 HLS modules are worth a total of 80 points (@ 5 points each), the 4 online Excel exercise quizzes are worth a total of 20 points (@5 pts. each), and the two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each), and the departmental comprehensive final is worth 200 points. The course grade will be determined using the total points. The **department final exam is scheduled as listed at the end of this syllabus. Please check for the time and location of your exam later.** No make up exams are given, however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

Point Allocation:

Exam 1	200
HLS Tutorials and **Excel /Quizzes** (16*5 pts + 4*5pts)	100
Online HLS quizzes – 2 * 50 points each	100
Final Exam	200
TOTAL	600

5. **Grading:**

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

DEPARTMENT, COLLEGE, and OTHER POLICIES

1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
    a)   A 2.70 grade point average
    b)   Completion of 45 hours of the pre-business course work,
    c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
        Accounting 2020 and 2030 with grade "C" or better
        Economics 1100
    If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. Jay Jayakumar (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**.

3.   As a general rule, the course format requires **no make up exam** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.

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. Please have a picture ID in your possession when taking all exams.

5.   Code of Conduct and Ethics: The policies for this course are consistent with those in the University of North Texas Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:
i.   The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.
ii.   The student misses (providing no reason)/ or is caught cheating on an examination.
If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam. the following evidence will be accepted as tenable excuse:
•   Written and valid doctor's excuse for illness
•   Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
•   Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)
 If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.
        If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the only circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade can not be used to substitute your poor performance in class.**
        If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas.

The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.

DSCI 3710 – Fall 2006

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

Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **Introduction to Business Statistics, 6e – the paperback edition** (also apply to **Concise Managerial Statistics**).

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
Week 1: 8/28	Course policies		
	Hypothesis testing for population mean - large samples. **Exclude authorization code calculations of power and beta; concepts only**	8.1	#8.1, 4, 5, 7, 8, 14 **HLS: Obtain**
Week 2: 9/4	One-tailed test for μ with large n.	8.2	#8.19, 20, 25 **HLS1: 9.4 HT means (Z-value)**
	Use of p-values	8.3	#8.28, 32 **HLS2: 9.3 HT means (p-value**
Week 3: 9/11	Hypothesis tests for population mean - small n, introduction to t-tables **unknown)**	8.4	#8.37, 38, 40, 41, 45, 53, 54 **HLS3:8.3 Est. means(σ** **HLS4: 9.5 HT mean (t-value)**
	C.I. & hypothesis test for two population means - large independent samples.	9.1-9.2	#9.3, 9, 10, 13, 67, **HLS5:10.2 HT 2 means (σ known)**
Week 4: 9/18	C.I. & hypothesis test for two population means - small independent samples. **Exclude hand calculations with unequal variance case**	9.3	#9.25, 26, 69 **HLS6: HT 2 means (σ – unknown) Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	9.5	#9.47, 48, 49, 51 **HLS7: 10.4 Compare μ's (dep. n)**
Week 5: 9/25	F-test for two variances **right tailed tests- concept only**	9.4	#9.44 **Download Excel 2 Assignment**
	One-way analysis of variance. **Exclude test for equality of variance and Tukey test**	9.6	#9.57, 58, 60, 65 **HLS 8: 12.1 ANOVA CASE 1: Comparing population Means - Excel Quiz (Finance)**

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS

Week 6: 10/2   C.I. for population proportion: **large samples only**. Determination of sample size   10.1   #10.7, 8, 9

HSL 9:8.1
Estimation- proportions
CASE2:1 way ANOVA Excel
Quiz (Marketing / Management)

*** Quiz 1 on HLS modules 8.3, 9.3, 9.4, 9.5, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
Certification on these modules (HLS assignments 1-8) is required to take the quiz.

Week 7: 10/9   Hypothesis test for population proportion: 10.2   #10.17, 26, 27, 29 **large samples only**.

HLS 10: 9.2 HT proportions (Z)
HLS 11: 9.1 HT proportions (t)

Comparing two population props. - large   10.3   #10.31, 37, 59 independent samples.

HLS 12:10.1 HT 2 proportions

Week 8: 10/16   Catch up and Review   **Download Excel 3 Assignment**

******* EXAM 1 *******   **Chap. 8 through 10**
Exam and answer key are returned in next class

Week 9: 10/23   Chi-Square test for independence/homogeneity   10.4   #10.49, 64
Exclude pooling of contingencies

Chi-Square test: p-values using   #10.65
chi-square tables

HLS 13:
9.9 Chi-sq. test for association

Week 10: 10/30

(10/31, Tuesday- before 5 PM)   ********** LAST DAY TO DROP ***********
Last day to drop with consent of the instructor for W / WF

Bi-variate data & correlation   11.1   #11.2, 3, 4
Covariance & Least Squares Line   #11.7, 10

Simple linear regression, model assumptions,   11.2   #11.18, 19, 21
meaning of s^2 **HLS14: 11.2 Fit linear model**

CASE 3: Chi-Square test

<u>DATE</u>	<u>TOPICS</u>	<u>SECTIONS</u>	<u>CW, HW &</u>

ASSIGNMENTS

Week 11: 11/06

	Simple linear regression: hypothesis test and C.I. for slope	11.3	#11.23, 24, 32
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	11.4	#11.37, 41
	Estimation/Prediction	11.5	#11.45, 53
	Residual analysis	11.6	#11.56

HSL 15: 11.3 Regression

a
n
a
l
.
I

Week 12: 11/13

	Multiple regression:	12.1	#12.1, 6, 7

HSL 16: 11.5 ANOVA

regression

	Global F- test vs individual t-tests	12.2	#12.13, 15, 20

Download Excel 4 Assignment

	Multicollinearity	12.3	#12.31, 32, 37

Week 13: 11/20

*** Quiz 2 on HLS modules 8.1, 9.1, 9.2, 9.9, 10.1, 11.2, 11.3 and 11.5 for 50 points***

Certification on these modules (HLS assignments 9-16) is required to take the quiz.

Nov 23 – Nov 24 ***************** Thanksgiving Holiday *****************

Week 14: 11/27

	Dummy variables. Multiple regression **using Excel**	12.4	#15.55, 57, 60
	Step-wise Procedures, further residual analysis	12.4	
	Multiple Regression Cases and Examples		**CASE 4: Multiple**

Regression -

Excel Quiz (Real-Estate)

	Multiple Regression Cases and Examples		

Week 15: 12/4 Catch-up and review

Week 16: 12/11   **Final exam for DSCI3710 (Please check for the venue before the finals).**

***** COMPREHENSIVE FINAL EXAM Tues Dec 12, 4:00 – 6:00 PM******

Assignment Due dates
Online registration due dates for the HLS: Business Statistics (HLS) Modules
Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts</u> .

No.		Module	Due Date
1	9.4	Hyp. test for μ (Z-value)	9/7
2	9.3	Hyp. test for μ (p-value)	9/12
3	8.3	Estimation (Means) Small Samples	9/14
4	9.5	Hyp. test for mean (t-value)	9/14
5	10.2	Comparing two means (large independent samples)	9/19
6	10.3	Comparing two means (small independent samples)	9/21
7	10.4	Comparing means (depend n)	9/26
8	12.1	ANOVA	10/3
9	8.1	Estimation (Proportions)	10/10
10	9.2	Hyp. test for proportions (Z-value)	10/12
11	9.1	Hypothesis test for proportions (p-value)	10/12
12		10.1 Comparing 2 proportions (large independent samples) 10/17	
13	9.9	Chi-sq. test for association	10/26
14	11.2	Fit linear model	11/4
15	11.3	Regression analysis I	11/14
16	11.5	ANOVA regression	11/16

Module registration is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a COBA lab, campus lab or done at home you should save the HLS certification code to your disk. You cannot enter certification codes by typing in the code.

Late certifications are accepted, but at <u>50</u> % penalty (for a max. of 2.5 pts.). If you certify but are unable to register send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. No late modules are taken after **the last class day before the final**.

Excel Computer Exercises:
The printed handout of your Excel assignment is required for completion of online quiz on each Excel assignment. Your grade is Excel assignment is based on the quiz: <u>4 x 5 pts. = 20 pts.</u>

No	Topic	Quiz Date
Excel CASE 1	Comparing population Means (Finance)	9/28
Excel CASE 2	1 way ANOVA (Marketing/ Management)	10/3
Excel CASE 3	Chi-Square test (Marketing)	11/2
Excel CASE 4	Multiple Regression (Real-Estate)	11/28

Excel exercise are available in the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm
[**OR**: COBA Web site > Departments > ITDS > Courses > MSCI Undergraduate > MSCI3710]

Each excel project is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own assignment to answer the questions. Make-up quizzes are NOT given. **Late computer exercises are hand graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire assignment is complete and correct.

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will   request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment).   It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

_____

PHONE:_____   E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY:_____   DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION:_____   DO YOU WORK?   YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature   Date

<u>**DSCI 3710-091, Spring 2007 - Syllabus**</u>

INSTRUCTOR: Daniel D. Friesen, Ph.D.   **OFFICE:** 201 N   **PHONE:** 972-780-3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: MR 2-6 pm;   TW 6-8 pm;   and by appointment.

REQUIRED BOOKS & SOFTWARE:
1. **Introduction to Business Statistics, 6e – paperback copy with QC appendix chapter**, by
   Kvanli/Pavur/Keeling (KPK), Thomson publishing <u>*or*</u> **Concise Managerial Statistics –
   (hardbound edition)**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning
   Systems* (HLS)*, Spring 2007 version*. Note: This software is **required** to complete the
   assignments that are equivalent to a portion of one take home exam. If you 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. Individual copies of the software are
   required to obtain the module certifications, and to take the online WEBTEST quizzes.

Optional Books:
1. <u>Study Guide to Introduction to Business Statistics</u>, (6th edition paperback)
2. <u>Any Excel Primer</u> - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items in print, as well as
   audiovisual media to become aware of the wide use of statistics in our daily lives. 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 the tutorials (**Hawkes Learning Systems: Business Statistics**), analyze real business data for class projects and take a quiz on the project (**Excel**) and answer exam questions based on short cases. Wherever possible, rather than being purely numerical, problems will be presented in word format. 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. Students are encouraged to keep up with the homework problems and check the answers provided in the back of the textbook. In fact, the assignments constitute a large portion of your grade in this course.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone the ITDS department for their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS and **Excel** projects 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 Computer Exercises:** Projects involving the use of **Excel** to analyze business data are as-signed. 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. **Late computer exercises are accepted by the next class period after the quiz but are hand graded and have a 50% penalty**. Thereafter, the assignments receive no credit.

3.   **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On completion of a module in a COBA 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, exit HLS and then go to your course HLS Web site at
http://www.hawkeslearning.com/UNTBSTAT/ , also accessible through the COBA link:
http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm (successive clicks through
COBA Web site > Departments > ITDS > Course Descriptions > Got the DSCI3710 and
select Course Website >)

Late submissions receive only 50% credit, provided they are registered by **the last class day
before the final**. No credit is awarded for any tutorial exercise completed after the last class
day before the final. *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 - formerly MSCI2710 or MSCI3710).* See the attached sheet for a full set of
HLS instructions. You can also download (save) a copy from our web site by going to:
http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full
set of student directions that walk through the product completely on that page.

4. **Exams:** There is one in-class mid-term exam worth 200 points; the 16 HLS modules are
worth a total of 80 points (@ 5 points each), the 4 online Excel exercise quizzes are worth a
total of 20 points (@5 pts. each), and the two online HLS module quizzes are worth a total of
100 points (@ 50 pts. each), and the departmental comprehensive final is worth 200 points.
The course grade will be determined using the total points. **Please check for the time and
location of your exam later.** No make up exams are given, however, if a student misses the
first in-class exam (with an appropriate University approved excuse, as mentioned above) the
final will 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.

Each of the two HLS quizzes is a summary test of the modules completed prior to them. The
quizzes can be done **only** on certification of these component/ prerequisite modules. Late
registration of the modules may disable you from the HLS Quizzes. Any issues related to on
time completion or credit for the modules and online quizzes should be resolved with the
instructor within one week following their respective due dates. Such issues can **not** be
considered weeks later and especially not during compilation of the final grades, at the end of
the semester.

Taking on Line Excel and HLS Quizzes: To take a quiz in HLS open the software as usual
and select Web Test at the bottom of the page. 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 as posted in the progress
report 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/Exam,
you will receive either a -0- or partial credit for what portion you did complete. Therefore get
everything you need BEFORE opening the Quiz.

Point Allocation:

Mid-term Exam

	200

HLS Tutorials and **Excel /Quizzes** (16*5 pts + 4*5pts)   100
Online HLS quizzes (2 * 50 pts)   100
Final Exam

         200

_____

TOTAL

         600

5. **Grading:**   540+ = A
                 480+ = B
                 420+ = C
                 360+ = D
        Below 360 = F

6.   A Statistics Lab. is available in Denton for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems. It is not meant to be an extensive tutoring service. At specified times, a DSCI tutor will also be stationed in the general access computer lab on the 3rd floor of the BA building to assist students having difficulty with their computer assignments. Hours will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES:
1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
     a)   A 2.70 grade point average
     b)   Completion of 45 hours of the pre-business course work,
     c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** require **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
         Accounting 2020 and 2030 with grade "C" or better
         Economics 1100
     If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. Jay Jayakumar (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**.
3.   As a general rule, the course format requires **no make up exam** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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. Please have a picture ID in your possession when taking all exams.
5.   Code of Conduct and Ethics: The policies for this course are consistent with those in the University of North Texas Student Guidebook. You are responsible for familiarizing

yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:

   i. The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.

   ii. The student misses (providing no reason)/ or is caught cheating on an examination.

   If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

   * Written and valid doctor's excuse for illness
   * Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
   * Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

   If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

   If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the only circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade can not be used to substitute your poor performance in class.**

   If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas.

The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.)**

Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **Concise Managerial Statistics .** (Also apply to **Introduction to Business Statistics, 6e – the paperback edition**).

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
Week 1 (1/15)	**Martin Luther King Jr. Day**		
Week 2 (1/22)	Course policies		
	Hypothesis testing for population mean - large samples. **Exclude** authorization code calculations of power and beta; concepts only	8.1	#8.1, 4, 5, 7, 8, 14 **HLS: Obtain**
Week 3 (1/29)	One-tailed test for μ with large n value)	8.2	#8.19, 20, 25 **HLS1: 9.4 HT means (Z-**
	Use of p-values	8.3	#8.28, 32 **HLS2:8.3 Est. means(σ unknown)**
Week 4 (2/5)	Hypothesis tests for population mean - 54 small n, introduction to t-tables value)	8.4	#8.37, 38, 40, 41, 45, 53, **HLS3: 9.5 HT mean (t-** **HLS4: 9.3 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	9.1-9.2	#9.3, 9, 10, 13, 67, **HLS5:10.2 HT 2 means (σ known)**
Week 5 (2/12)	C.I. & hypothesis test for two population means - small independent samples. **Exclude** (σ – **hand calculations with unequal variance case**	9.3	#9.25, 26, 69 **HLS6: 10.3 HT 2 means** **unknown)** **Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	9.5	#9.47, 48, 49, 51 **HLS7: 10.4 Compare μ's (dep. n)**
Week 6 (2/19)	F-test for two variances **right tailed tests- concept only**	9.4	#9.44 **Download Excel 2 Assignment**
	One-way analysis of variance. **Exclude** **test for equality of variance and Tukey test**	9.6	#9.57, 58, 60, 65 **HLS 8: 12.1 ANOVA**

CASE 1: Comparing population Means - Excel Quiz (Finance)

DATE	TOPICS	SECTIONS	CW, HW &

ASSIGNMENTS

Week 7 (2/26) C.I. for population proportion: **large samples**   10.1   #10.7, 8, 9
only. Determination of sample size

                                                                           HSL 9:8.1
                                                                           Estimation- proportions
                                                                           CASE2: 1 way ANOVA Excel
                                                                           Quiz
                                                                           (Marketing / Management)

*** Quiz 1 on HLS modules 8.3, 9.3, 9.4, 9.5, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
Certification on these modules (HLS assignments 1-8) is required to take the
quiz.

Week 8 (3/5) Hypothesis test for population proportion: 10.2   #10.17, 26, 27, 29
                                                                large samples
                                                                only.

                                                                           HLS 10: 9.2 HT
                                                                           proportions (Z)
                                                                HLS 11: 9.1 HT proportions (t)

Comparing two population props. - large   10.3   #10.31, 37, 59
                                                             independent
                                                    samples.

                                                                           HLS 12: 10.1 HT
                                                                           2 proportions

Week 9 (3/12) Catch up and Review   **Download Excel 3 Assignment**

******* EXAM 1 *******   **Chap. 8 through 10**
Exam and answer key are returned in next class

Spring Break 3/19 – 3/25

Week 10 (3/26) Chi-Square test for independence/homogeneity 10.4   #10.49, 64
Exclude pooling of contingencies

Chi-Square test: p-values using   #10.65
chi-square tables

                                                                           HLS 13:
                                                                           9.9 Chi-sq. test for
                                                                           association

Mar. 27 (Tuesday- before 5 PM)   ******** LAST DAY TO DROP *********
Last day to drop with consent of the instructor for W / WF

Week 11 (4/2) Bi-variate data & correlation   11.1   #11.2, 3, 4
Covariance & Least Squares Line   #11.7, 10

Simple linear regression, model assumptions,   11.2   #11.18, 19, 21

meaning of s^2

HLS14: 11.2 Fit linear model

CASE 3: Chi-Square test

-

Excel Quiz (Marketing)

DATE ASSIGNMENTS	TOPICS	SECTIONS	CW, HW &
Week 12 (4/9)	Simple linear regression: hypothesis test and C.I. for slope	11.3	#11.23, 24, 32
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	11.4	#11.37, 41
	Estimation/Prediction Residual analysis	11.5 11.6	#11.45, 53 #11.56 **HSL 15: 11.3 Regression**

a
n
a
l
.
I

Week 13 (4/16)	Multiple regression:	12.1	#12.1, 6, 7 **HSL 16: 11.5 ANOVA**
regression			
	Global F- test vs individual t-tests	12.2	#12.13, 15, 20 **Download Excel 4 Assignment**
	Multicollinearity	12.3	#12.31, 32, 37
Week 14 (4/23)	Catch up and review		

*** Quiz 2 on HLS modules 8.1, 9.1, 9.2, 9.9, 10.1, 11.2, 11.3 and 11.5 for 50
points***

Certification on these modules (HLS assignments 9-16) is required to take the
quiz.

Week 15 (4/30)	Dummy variables. Multiple regression **using Excel**	12.4	#12.55, 57, 60
	Step-wise Procedures, further residual analysis	12.4	
Regression -	Multiple Regression Cases and Examples		**CASE 4: Multiple Excel Quiz (Real-Estate)**
	Multiple Regression Cases and Examples		
Week 16 (5/7)	**Comprehensive Final exam for DSCI3710.**		

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: 16 x 5 pts. = 80 pts .

No.		Module	Due Date
1	9.4	Hyp. test for µ (Z-value)	2/5
2	8.3	Estimation (Means) Small Samples	2/5
3	9.5	Hyp. test for mean (t-value)	2/12
4	9.3	Hyp. test for µ (p-value)	2/12
5	10.2	Comparing two means (large independent samples)	2/12
6	10.3	Comparing two means (small independent samples)	2/19
7	10.4	Comparing means (depend n)	2/19
8	12.1	ANOVA	2/26
		HLS Quiz #1 (covering modules 1-8: Hyp. Test to ANOVA)	2/28-3/5
9	8.1	Estimation (Proportions)	3/5
10	9.2	Hyp. test for proportions (Z-value)	3/12
11	9.1	Hypothesis test for proportions (p-value)	3/12
12		10.1 Comparing 2 proportions (large independent samples)	3/12
13	9.9	Chi-sq. test for association	4/2
14	11.2	Fit linear model	4/9
15	11.3	Regression analysis I	4/16
16	11.5	ANOVA regression	4/23
		HLS Quiz #2 (covering modules 9-16)	4/25-4/30

Module registration is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a COBA lab, campus lab or done at home you should save the HLS certification code to your disk. You cannot enter certification codes by typing in the code.

Late certifications are accepted, but at 50 % penalty (for a max. of 2.5 pts.). If you certify but are unable to register, send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. Any issue related to tardy/ late submission of modules must be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before the final** (4/30).

Excel Computer Exercises: The printed handout of your Excel assignment is required for completion of online quiz on each Excel assignment. Your grade is Excel assignment is based on the quiz: 4 x 5 pts. = 20 pts.

No	Topic	Quiz Date	Hand-in
Excel CASE 1	Comparing population Means (Finance)	2/21-2/26	2/26
Excel CASE 2	1 way ANOVA (Marketing/ Management)	2/28-3/5	3/5
Excel CASE 3	Chi-Square test (Marketing)	3/28-4/2	4/2
Excel CASE 4	Multiple Regression (Real-Estate)	4/25-4/30	4/30

Excel exercise are available in the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm
[**OR**: COBA Web site > Departments > ITDS > Courses > MSCI Undergraduate > MSCI3710]

Each excel project is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own assignment to answer the questions. Make-up quizzes are NOT given. **Late computer exercises are hand graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire assignment is complete and correct.

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

7. Go to www.hawkeslearning.com and click on **get your access code**.
8. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
9. Choose the product you need from the dropdown list.
10. Choose pay with Credit Card.
11. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
12. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:

7. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
8. Double-click on the **My Computer** icon.
9. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
10. Double-click on Setup.exe.
11. Follow the on-screen instructions.
12. You will be prompted for a **Course ID.**
    -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTBSTAT** in the box provided.
    -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

3. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
4. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

3. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
4. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

4. The **Certify** option is where you will complete your assignment.
5. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
6. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
      - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
      - click the Submit Certificate(s) link
      - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
      - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

PHONE:_____   E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY:_____   DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION:_____   DO YOU WORK?   YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature

CLASS (DAY/TIME): Sect 090 - Tues 6:00 – 8:50 PM
INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: 201 N   **PHONE:** 972.780.3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: M 3-6 pm; T 12:30 – 1:30 pm and 3-6 pm; W 3-6 pm; Th 12:30 – 2:30 pm

REQUIRED BOOKS & SOFTWARE:
1. **Introduction to Business Statistics, 6e – paperback copy with QC appendix chapter**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing or **Concise Managerial Statistics – (hardbound edition)**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2007 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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**. Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes.

Optional Books:
1.   Study Guide to Introduction to Business Statistics, (6th edition paperback)
2.   Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1.   Students are encouraged to pay attention to commercials and news items in print, as well as audiovisual media to become aware of the wide use of statistics in our daily lives. 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 (1) complete the tutorials (**Hawkes Learning Systems: Business Statistics**), (2) analyze real business data for class projects and take a quiz on the projects (**Excel**) and (3) answer exam questions based on short cases. Wherever possible, rather than being purely numerical, problems will be presented in word format. 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. Students are encouraged to keep up with the homework problems and check the answers provided in the back of the textbook. In fact, the assignments constitute a large portion of your grade in this course.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone the ITDS department for their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:

1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS and **Excel** projects 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 Computer Exercises:** 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. **Late computer exercises are accepted by the next class period after the quiz but are hand graded and have a 50% penalty**. Thereafter, the assignments receive no credit.

3.   **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On completion of a module in a COBA 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, exit HLS and then go to your course HLS Web site at

, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Got the DSCI3710 and select Course Website >).

Late submissions receive only 50% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).*** See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is one in-class mid-term exam worth 200 points; the 16 HLS modules are worth a total of 80 points (@ 5 points each), the 4 online Excel exercise quizzes are worth a total of 20 points (@5 pts. each), and the two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each), and the comprehensive final is worth 200 points. The course grade will be determined using the total points. No make up exams are given, however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

    Each of the two HLS quizzes is a summary test of the modules completed prior to them. The quizzes can be done **only** on certification of these component/ prerequisite modules. Late registration of the modules may disable you from the HLS Quizzes. Any issues related to on time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues can **not** be considered weeks later and especially not during compilation of the final grades, at the end of the semester.

    Taking on Line Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

    Point Allocation:
    Mid-term Exam
    200

HLS Tutorials and **Excel /Quizzes** (16*5 pts + 4*5pts)	100
Online HLS quizzes (2 * 50 pts)	100
Final Exam	
	200

TOTAL

600

5. **Grading:**   540+ = A
                      480+ = B
                      420+ = C
                      360+ = D
            Below 360 = F

6.   A Statistics Lab. is available for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems. It is not meant to be an extensive tutoring service. At specified times, a DSCI tutor will also be stationed in the general access computer lab on the 3rd floor of the BA building to assist students having difficulty with their computer assignments. Hours will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES

1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
      a)   A 2.70 grade point average
      b)   Completion of 45 hours of the pre-business course work,
      c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
               Accounting 2020 and 2030 with grade "C" or better
               Economics 1100
      If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. Jay Jayakumar (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**.
3.   As a general rule, the course format requires **no make up exam** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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. Please have a picture ID in your possession when taking all exams.
5.   Code of Conduct and Ethics: The policies for this course are consistent with those in the University of North Texas Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.
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.

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. Some grounds for unsatisfactory progress are as follows:

    i. The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.

    ii. The student misses (providing no reason)/ or is caught cheating on an examination.

If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

* Written and valid doctor's excuse for illness

* Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)

* Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the only circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade can not be used to mollify your poor performance in class.**

If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas.

The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to
Introduction to Business Statistics, 6e – the paperback edition.

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS

Week 1 (AUG. 27)

	Course policies		
	Hypothesis testing for population mean (sigma known) **Exclude**	8.1	#8.1, 4, 5, 7, 8, 14 **HLS: Obtain**

authorization code
calculations of power and beta; concepts only

Week 2 (SEPT. 3)

	One-tailed test for μ (sigma known)	8.2	#8.19, 20, 25 **HLS1: 9.4 HT means (Z-**

value)

	Use of p-values	8.3	#8.28, 32

Week 3 (SEPT. 10)

	Hypothesis tests for population mean (sigma unknown), introduction to t-tables	8.4	#8.37, 38, 40, 41, 45, 53, 54 **HLS2: 9.5 HT mean (t-**

value)

HLS3: 9.3 HT means (p-value)

	C.I. & hypothesis test for two populations means (sigmas known) .	9.1-9.2	#9.3, 9, 10, 13, 67, **HLS4:10.2 HT 2 means (σ known)**

Week 4 (SEPT. 17)

	C.I. & hypothesis test for two populations means - independent samples. **Exclude hand calculations with unequal variance case**	9.3	#9.25, 26, 69 **HLS5: 10.3 HT 2 means (σ – unknown)** **Download Excel 1 Assignment**

	Paired (dependent) samples from two populations.	9.5	#9.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep. n)**

Week 5 (SEPT. 24)

	Comparing variances **right tailed tests- concept only**	9.4	#9.44 **Download Excel 2 Assignment**

	One-factor ANOVA. **Exclude**	9.6	#9.57, 58, 60, 65

DATE	TOPICS	SECTIONS	CW, HW &

ASSIGNMENTS

Week 6 (OCT. 1)

	C.I. for population proportion: **large samples only**. Determination of sample size	10.1	#10.7, 8, 9

CASE2:1 way ANOVA Excel

Quiz
(Marketing / Management)

	Hypothesis test for population proportion:	10.2	#10.17, 26, 27, 29

large samples only.

HLS 8: 9.2 HT proportions (Z)
HLS 9: 9.1 HT prop. (p-value) *

*HLS 9: 9.1 not on the HLS Q 1

Week 7 (OCT. 8)

	Comparing two population props. - large	10.3	#10.31, 37, 59

independent
samples.

HLS 10:10.1 HT 2 proportions
*HLS 10: 10.1 not on the

HLS Q 1

Catch up and Review

**   *** 10/13 Quiz 1 on HLS modules 9.2, 9.3, 9.4, 9.5, 10.2, 10.3, 10.4, and 12.1 for 50 points *****

Certification on these modules (HLS assignments 1-8) is required to take the quiz.

Week 8 (OCT. 15)

	Catch up and Review		**Download Excel 3 Assignment**

	******* EXAM 1 *******		**Chap. 8 through 10**

Exam and answer key are returned in next class

Week 9 (OCT. 22)

	Multinomial and test for independence **Exclude pooling of contingencies**	10.4	#10.49, 64

	Chi-Square test: p-values using chi-square tables		#10.65

HLS 11:
9.9 Chi-sq. test for association

Week 10 (Oct. 29)
Oct 30   (Tuesday- before 5 PM)   ******** LAST DAY TO DROP *********

Last day to drop with consent of the instructor for W / WF

Bivariate data & correlation	11.1	#11.2, 3, 4	
		#11.7, 10	

**HLS12: 11.2
Scatter Plots & Corr**

Simple linear regression model	11.2	#11.18, 19, 21	

**HLS13: 11.2 Fit linear model
CASE 3: Chi-Square test -
Excel Quiz (Marketing)**

DATE	TOPICS	SECTIONS	CW, HW &
ASSIGNMENTS			

Week 11 (NOV. 05)

Inference on the slope	11.3	#11.23, 24, 32	
Strength of the model	11.4	#11.37, 41	

Exclude t-test for rho

Estimation/Prediction	11.5	#11.45, 53	
Examining the Residuals	11.6	#11.56	

HSL 14: 11.3 Regression

a
n
a
l
.

I

Week 12 (NOV. 12)

Multiple linear regression model	12.1	#12.1, 6, 7	

**HSL 15: 11.4 Mult
regression HSL 16: 11.5
ANOVA regression**

Hyp Testing and CI for Beta parameters	12.2	#12.13, 15, 20	

**Download Excel 4
Assignment**

Multicollinearity (part of the section)	12.3	#12.31, 32, 37	

Week 13 (NOV. 19)

**Nov. 21
points*****

*** Quiz 2 on HLS modules 9.1, 9.9, 10.1, 11.1, 11.2, 11.3, 11.4 and 11.5 for 50

**Certification on these modules (HLS assignments 9-16) is required to take the
quiz.**

Optional class / problem solving session.

Week 14 (NOV. 26)

Dummy variables.		12.4	#12.55, 57, 60
Multiple regression **using Excel**			

Step-wise Procedures, further residual analysis   12.4

Multiple Regression Cases and Examples   **CASE 4: Multiple**
Regression -

                                                                                              Excel 4 Quiz (Real-
Estate)
Week 15 (DEC. 3)
Catch-up and review

Week 16 (DEC. 10): FINALS WEEK
The Comprehensive Final Exam for DSCI3710-090 will be held at 6:00 p.m. –
8:50 p.m. on 12/11 in our regular classroom.

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts .</u>

No.		Module	Due Date
1	9.4	Hyp. test for μ (Z-value)	9/11
2	9.5	Hyp. test for mean (t-value)	9/18
3	9.3	Hyp. test for μ (p-value)	9/18
4	10.2	Comparing two means (large independent samples)	9/25
5	10.3	Comparing two means (small independent samples)	9/25
6	10.4	Comparing means (depend n)	10/02
7	12.1	ANOVA	10/02
8	9.2	Hyp. test for proportions (Z-value)	10/09
		HLS Quiz #1 (covering modules 1-8: Hyp. Test to ANOVA)	**10/13**

Saturday

No.		Module	Due Date
9	9.1	Hypothesis test for proportions (p-value)	10/22
10		10.1 Comparing 2 proportions (large independent samples)	10/22
11	9.9	Chi-sq. test for association	10/30
12	11.1	Scatter plots and Correlation	11/06
13	11.2	Fit linear model	11/06
14	11.3	Regression analysis I	11/19
15	11.4	Multiple Regression	11/19
16	11.5	ANOVA regression	11/19
		HLS Quiz #2 (covering modules 9-16)	**11/21**

Module registration is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a COBA lab, campus lab or done at home you should save the HLS certification code to your disk. You cannot enter certification codes by typing in the code.

Late certifications are accepted, but at <u> 50 </u>% penalty (for a max. of 2.5 pts.). If you certify but are unable to register, send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. Any issue related to tardy/ late submission of modules have necessarily to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before the final**.

Excel Computer Exercises: The printed handout of your Excel assignment is required for completion of online quiz on each Excel assignment. Your grade is Excel assignment is based on the quiz: <u> 4 x 5 pts. = 20 pts.</u>

No	Topic	Quiz Date
Excel CASE 1	**Comparing population Means (Finance)**	**09/27**
Excel CASE 2	**1 way ANOVA (Marketing/ Management)**	**10/02**
Excel CASE 3	**Chi-Square test (Marketing)**	**11/01**
Excel CASE 4	**Multiple Regression (Real-Estate)**	**11/29**

Excel exercises are available in the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm   [**OR**: COBA Web site > Departments > ITDS > Courses > MSCI Undergraduate > MSCI3710]

Each excel project is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own assignment to answer the questions. Make-up quizzes are NOT given. **Late computer exercises are hand graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire assignment is complete and correct.

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

13. Go to www.hawkeslearning.com and click on **get your access code**.
14. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
15. Choose the product you need from the dropdown list.
16. Choose pay with Credit Card.
17. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
18. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:

13. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
14. Double-click on the **My Computer** icon.
15. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
16. Double-click on Setup.exe.
17. Follow the on-screen instructions.
18. You will be prompted for a **Course ID.**
    -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTBSTAT** in the box provided.
    -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

5. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
6. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

5. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
6. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

7. The **Certify** option is where you will complete your assignment.
8. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
9. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

PHONE: _____ E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY: _____ DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION: _____ DO YOU WORK? YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature

<u>**DSCI 3710-090 -- Spring 2008 -- Syllabus**</u>

CLASS (DAY/TIME): Sect 090 - TuTh 12:30 – 1:50 PM
INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: 201 N **PHONE:** 972.780.3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TuWeTh 3 - 6 pm

REQUIRED BOOKS & SOFTWARE:
1. **Introduction to Business Statistics, updated 6e – paperback copy with QC appendix chapter**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing or **Concise Managerial Statistics – (hardbound edition)**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS). Note: This software is **required** to complete the assignments. If you 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. Individual copies of the software are required to obtain the module certifications, and to take the online quizzes.

   Optional Books:
   1. Study Guide to Introduction to Business Statistics, (6th edition paperback).
   2. Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1.   Students are encouraged to pay attention to commercials and news items in print, as well as audiovisual media to become aware of the wide use of statistics in our daily lives. 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 (1) certify Hawkes modules (**Hawkes Learning Systems: Business Statistics**), (2) analyze real business data for class projects and take a quiz on the projects (**Excel**) and (3) answer exam questions based on short cases. Wherever possible, rather than being purely numerical, problems will be presented in word format. 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. Students are encouraged to work the homework problems prior to class and to check the answers provided in the back of the textbook. In fact, the assignments constitute a large portion of your grade in this course.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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 a student wishes to withdraw from / drop the course, the students has the final responsibility for seeing that s/he properly withdraws 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 phone the ITDS department for their final grade in the course. Final grades are only available electronically and by email.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework problems are assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS and Excel Computer Exercises 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 Computer Exercises:** Projects involving the use of **Excel** to analyze business data are assigned in this syllabus. These are an important part of the course grade that are assessed via online **Quizzes** that are available in the HLS software using WEBTEST on the dates that they are due.

3.   **Module Certification:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. The due dates for the certifications using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On completion of a module in a COBA 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 you should check that you have received credit by going to your progress report. If there is any problem, exit HLS and then go to your course HLS Web site at

http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm.

Late submissions receive only 50% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final.

Note: To obtain 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 - formerly MSCI2710 or MSCI3710). See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is one in-class mid-term exam worth 200 points; the 16 HLS modules are worth a total of 80 points (@ 5 points each), the 4 online Excel exercise quizzes are worth a total of 20 points (@5 pts. each), the two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each), and the comprehensive final is worth 200 points. The course grade will be determined using the total points. No make-up exams are given, however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

Each of the two HLS quizzes is a summary test of the modules completed prior to them. These quizzes can be commenced **only** when certification of the component/prerequisite modules is complete. Late registration of the modules may stop you from taking the HLS Quizzes. Any issues related to on-time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues cannot be considered weeks later and especially not during compilation of the final grades, at the end of the semester.

Taking on-line Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

Point Allocation:

Mid-term Exam	200
HLS Tutorials and **Excel Quizzes** (16*5 pts + 4*5pts)	100
Online HLS quizzes (2 * 50 pts)	100
Final Exam	200
TOTAL	600

5. **Grading:**

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

6.   A Statistics Lab. is available for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems. It is not meant to be an extensive tutoring service. At specified times, a DSCI tutor will also be stationed in the Denton general access computer lab on the 3rd floor of the BA building to assist students having difficulty with their computer assignments. Hours will be announced in class.

    The Dallas campus has a statistics tutor; Ms. Ngozi offices in room 160. You can make an appointment with her via Student Services, extension 3600.

DEPARTMENT, COLLEGE, and OTHER POLICIES

1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a)   A 2.70 grade point average
   b)   Completion of 45 hours of the pre-business course work,
   c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
           Accounting 2020 and 2030 with grade "C" or better
           Economics 1100

   If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. Victor Prybutok (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**.

3.   As a general rule, the course format requires **no make-up exam(s)** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.

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. Please have a

picture ID in your possession when taking all exams.

5. Code of Conduct and Ethics: The policies for this course are consistent with those in the <u>University of North Texas Student Guidebook</u>. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:

    i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

    ii. The student misses (providing no reason)/ or is caught cheating on an examination.

If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

- o Written and valid doctor's excuse for illness
- o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
- o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. This is the only circumstance in which an "I" grade will be awarded. **If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used to mollify your poor performance in class.**

If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas.

The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.

DSCI 3710 – Spring 2008

HLS – HLS: Business Statistics tutorials (In the listing below HT stands for Hypothesis Testing.)
Reading assignments and Sections refer to **Introduction to Business Statistics, updated 6th edition**.

<u>DATE</u>   <u>TOPICS</u>   <u>SECTIONS</u>   <u>ASSIGNMENTS</u>

Week 1 (1/15, 1/17)
Course policies
Hypothesis testing for   8.1   #8.1, 4, 5, 7, 8, 14
population mean - large samples. **Exclude**   **HLS: Obtain**
authorization code
calculations of power and beta; concepts only

Week 2 (1/22, 1/24)
One-tailed test for µ with large n   8.2   #8.19, 20, 25
HLS 1: 9.4 HT means (Z-value)

Use of p-values   8.3   #8.28, 32
HLS 2: 9.5 HT means (σ unknown)

Week 3 (1/29, 1/31)
Hypothesis tests for population mean -   8.4   #8.37, 38, 40, 41, 45, 53, 54

small n, introduction to t-tables   **HLS 3: 9.3 HT means (p-value)**

C.I. & hypothesis test for two population   9.1 - 9.2   #9.3, 9, 10, 13, 67,
means - large independent samples.   **HLS 4:10.2 HT 2 means (σ known)**

Week 4 (2/5, 2/7)
C.I. & hypothesis test for two population   9.3   #9.25, 26, 69
means - small independent samples. **Exclude**   **HLS 5: 10.3 HT 2 means (σ unknown)**
hand calculations with unequal variance case   **Download Excel 1**
Assignment

Paired (dependent) small samples from   9.5   #9.47, 48, 49, 51
two populations.   **HLS 6: 10.4 Compare µ's (dep. n)**

Week 5 (2/12, 2/14)
F-test for two variances   9.4   #9.44
right tailed tests- concept only   **Download Excel 2**
Assignment

One-way analysis of variance. **Exclude**   9.6   #9.57, 58, 60, 65
test for equality of variance and Tukey test   **HLS 7: 12.1 ANOVA**
Excel 1: Comparing population
Means – Excel 1 Quiz (Finance)

Week 6 (2/19, 2/21)

C.I. for population proportion: **large samples only**. Determination of sample size

10.1

#10.7, 8, 9

HSL 8: 9.2 HT proportions (Z)
Excel 2: 1 way ANOVA Excel 2
Quiz (Marketing / Mgmt)

DATE	TOPICS	SECTIONS	ASSIGNMENTS

Week 7 (2/26, 2/28)

	Hypothesis test for population proportion:	10.2	#10.17, 26, 27, 29 **large samples only**.
			HLS 9: 9.1 HT proportions (p)
	Comparing two population props. - large	10.3	#10.31, 37, 59 independent samples.
			HLS 10: 10.1 HT 2 proportions

*** Quiz 1 on HLS modules 8.3, 9.3, 9.4, 9.5, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
Certification on these modules (HLS assignments 1-8) is required to take the quiz.

Week 8 (3/4, 3/6)

	Catch up and Review		
	******* EXAM 1 *******	**Chap. 8 through 10**	
	Exam and answer key are returned in next class		

Week 9 (3/11, 3/13)

	Chi-Square test for independence/homogeneity	10.4	#10.49, 64
	Exclude pooling of contingencies		
	Chi-Square test: p-values using		#10.65
	chi-square tables		
			HLS 11: 9.9 Chi-sq. test for association Download Excel 3 Assignment

Spring Break: 3/17 – 3/23

Mar. 25 (Tuesday- before 5 PM)   ********** LAST DAY TO DROP ***********
Last day to drop with consent of the instructor for W / WF

Week 10 (3/25, 3/27)

	Bi-variate data & correlation	11.1	#11.2, 3, 4
	Covariance & Least Squares Line		#11.7, 10
	Simple linear regression, model assumptions,	11.2	#11.18, 19, 21
			meaning of s^2
			HLS 12: 11.1

Scatter plots
HLS 13: 11.2 Fit linear model
Excel 3: Chi-Square test -
Excel 3 Quiz

(Marketing)

DATE	TOPICS	SECTIONS	ASSIGNMENTS

Week 11 (4/1, 4/3)

	Simple linear regression: hypothesis test and C.I. for slope	11.3	#11.23, 24, 32
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	11.4	#11.37, 41
	Estimation/Prediction	11.5	#11.45, 53
	Residual analysis	11.6	#11.56

HSL 14: 11.3 Regression

a
n
a
l
.

I

Week 12 (4/8, 4/10)

| | Multiple regression: | 12.1 | #12.1, 6, 7 |

HSL 15: 11.4 Multiple

Regression

HLS 16: 11.5 ANOVA

regression

| | Global F- test vs individual t-tests | 12.2 | #12.13, 15, 20 |
| | Multicollinearity | 12.3 | #12.31, 32, 37 |

Download Excel 4
Assignment

Week 13 (4/15, 4/17)

| | Dummy variables. Multiple regression using Excel | 12.4 | #12.55, 57, 60 |
| | Step-wise Procedures, further residual analysis | 12.4 | |

Week 14 (4/22, 4/24)

Multiple Regression Cases and Examples **Excel 4: Multiple**

Regression -

Excel 4 Quiz

(Real-Estate)

Multiple Regression Cases and Examples

*** Quiz 2 on HLS modules 8.1, 9.1, 9.2, 9.9, 10.1, 11.2, 11.3 and 11.5 for 50 points***
Certification on these modules (HLS assignments 9-16) is required to take the
quiz.

Week 15 (4/29, 5/1) Prefinals week—catch-up and review.

Week 16: Comprehensive Final exam for DSCI3710. As per the schedule of classes, the final exam

for this class is scheduled for 10:30 am – 12:30 pm May 8 (Thursday).

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: 16 x 5 pts. = 80 pts .

No.		Module	Due Date
1	9.4	Hyp. test for μ (Z-value)	1/29
2	9.5	Hyp. test for mean (t-value)	2/5
3	9.3	Hyp. test for μ (p-value)	2/5
4	10.2	Comparing two means (large independent samples)	2/12
5	10.3	Comparing two means (small independent samples)	2/12
6	10.4	Comparing means (dependent samples)	2/15
7	12.1	ANOVA	2/22
8	9.2	Hyp. test for proportions (Z-value)	2/28
		HLS Quiz #1 (covering modules 1-8)	**2/28-3/2**
9	9.1	Hypothesis test for proportions (p-value)	3/14
10		10.1 Comparing 2 proportions (large independent samples)	3/14
11	9.9	Chi-sq. test for association	3/28
12	11.1	Scatter plots and Correlation	4/4
13	11.2	Fit linear model	4/4
14	11.3	Regression analysis I	4/11
15	11.4	Multiple Regression	4/18
16	11.5	ANOVA regression	4/18
		HLS Quiz #2 (covering modules 9-16)	**4/24-4/27**

Module registration is due by (11:59pm) of due date as "logged-in" on the Hawkes system. After completing a module in a campus lab or done at home, you should save the HLS certification code to your disk.

Late certifications are accepted, but at 50 % penalty (i.e. 2.5 pts.). If you certify but are unable to register, visit the instructor's office in order to resolve the problem. No late modules are taken after **the last class day before the final, 5/1**.

Excel Computer Exercises: The printed handout of your Excel assignment is required for completion of online quiz on each Excel assignment. Your grade is Excel assignment is based on the quiz: 4 x 5 pts. = 20 pts.

No	Topic	Quiz Date
Excel 1	**Comparing population Means (Finance)**	**2/14 – 2/17**
Excel 2	**1 way ANOVA (Marketing/ Management)**	**2/21 2/24**
Excel 3	**Chi-Square test (Marketing)**	**3/27 – 3/30**
Excel 4	**Multiple Regression (Real-Estate)**	**4/24 – 4/27**

Excel exercises are available in the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm   [**OR**: COBA Web site > Departments > ITDS > Courses > MSCI Undergraduate > MSCI3710]

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due dates. The quiz contains 5 questions (5 points) and students need to use their own assignment to answer the questions. Make-up quizzes are NOT given. **Late computer exercises are hand graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire assignment is complete

and correct.

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
      - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
      - click the Submit Certificate(s) link
      - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
      - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

PHONE: _____ E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY: _____ DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION: _____ DO YOU WORK? YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature

CLASS (DAY/TIME): Sect 091 - Th 6:00 – 8:50 PM
INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: 201 N   **PHONE:** 972.780.3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TuWeTh 3 - 6 pm

REQUIRED BOOKS & SOFTWARE:
1. **Introduction to Business Statistics, updated 6e – paperback copy with QC appendix chapter**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing or **Concise Managerial Statistics – (hardbound edition)**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS). Note: This software is **required** to complete the assignments. If you 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. Individual copies of the software are required to obtain the module certifications, and to take the online quizzes.

   Optional Books:
   1. Study Guide to Introduction to Business Statistics, (6th edition paperback).
   2. Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1.   Students are encouraged to pay attention to commercials and news items in print, as well as audiovisual media to become aware of the wide use of statistics in our daily lives. 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 (1) certify Hawkes modules (**Hawkes Learning Systems: Business Statistics**), (2) analyze real business data for class projects and take a quiz on the projects (**Excel**) and (3) answer exam questions based on short cases. Wherever possible, rather than being purely numerical, problems will be presented in word format. 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. Students are encouraged to work the homework problems prior to class and to check the answers provided in the back of the textbook. In fact, the assignments constitute a large portion of your grade in this course.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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 a student wishes to withdraw from / drop the course, the students has the final responsibility for seeing that s/he properly withdraws 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 phone the ITDS department for their final grade in the course. Final grades are only available electronically and by email.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework problems are assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS and Excel Computer Exercises 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 Computer Exercises:** Projects involving the use of **Excel** to analyze business data are assigned in this syllabus. These are an important part of the course grade that are assessed via online **Quizzes** that are available in the HLS software using WEBTEST on the dates that they are due.

3.   **Module Certification:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS**) are assigned. The due dates for the certifications using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On completion of a module in a COBA 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 you should check that you have received credit by going to your progress report. If there is any problem, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm.

        Late submissions receive only 50% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final.

Note: To obtain 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 - formerly MSCI2710 or MSCI3710).   See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4.   **Exams:** There is one in-class mid-term exam worth 200 points; the 16 HLS modules are worth a total of 80 points (@ 5 points each), the 4 online Excel exercise quizzes are worth a total of 20 points (@5 pts. each), the two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each), and the comprehensive final is worth 200 points. The course grade will be determined using the total points. No make-up exams are given, however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

Each of the two HLS quizzes is a summary test of the modules completed prior to them. These quizzes can be commenced **only** when certification of the component/prerequisite modules is complete. Late registration of the modules may stop you from taking the HLS Quizzes. Any issues related to on-time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues cannot be considered weeks later and especially not during compilation of the final grades, at the end of the semester.

Taking on-line Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

Point Allocation:

      Mid-term Exam

                                               200

      HLS Tutorials and **Excel Quizzes** (16*5 pts + 4*5pts)   100

      Online HLS quizzes (2 * 50 pts)   100

      Final Exam

                                               200

_____

TOTAL

                                             600

5. **Grading:**   540+ = A
                       480+ = B
                       420+ = C
                       360+ = D
                Below 360 = F

6.   A Statistics Lab. is available for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems. It is not meant to be an extensive tutoring service. At specified times, a DSCI tutor will also be stationed in the Denton general access computer lab on the 3rd floor of the BA building to assist students having difficulty with their computer assignments. Hours will be announced in class.

        The Dallas campus has a statistics tutor; Ms. Ngozi offices in room 160. You can make an appointment with her via Student Services, extension 3600.

DEPARTMENT, COLLEGE, and OTHER POLICIES

1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:

     a)   A 2.70 grade point average

     b)   Completion of 45 hours of the pre-business course work,

     c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:

              Accounting 2020 and 2030 with grade "C" or better

              Economics 1100

If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. Victor Prybutok (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**.

3.   As a general rule, the course format requires **no make-up exam(s)** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.

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. Please have a picture ID in your possession when taking all exams.

5. Code of Conduct and Ethics: The policies for this course are consistent with those in the <u>University of North Texas Student Guidebook</u>. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:

   i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

   ii. The student misses (providing no reason)/ or is caught cheating on an examination.

   If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

   o Written and valid doctor's excuse for illness
   o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
   o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

   If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

   If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. This is the only circumstance in which an "I" grade will be awarded. **If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used to mollify your poor performance in class.**

   If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas.

   The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.**)
Reading assignments and Sections refer to **Introduction to Business Statistics, updated 6ᵗʰ edition**.

DATE	TOPICS	SECTIONS	ASSIGNMENTS
Week 1	Course policies Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	8.1	#8.1, 4, 5, 7, 8, 14 **HLS: Obtain authorization code**
Week 2	One-tailed test for μ with large n	8.2	#8.19, 20, 25 **HLS 1: 9.4 HT means (Z-value)**
	Use of p-values	8.3	#8.28, 32 **HLS 2: 9.5 HT means (σ unknown)**
Week 3	Hypothesis tests for population mean - small n, introduction to t-tables	8.4	#8.37, 38, 40, 41, 45, 53, 54 **HLS 3: 9.3 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	9.1 - 9.2	#9.3, 9, 10, 13, 67, **HLS 4:10.2 HT 2 means (σ known)**
Week 4	C.I. & hypothesis test for two population means - small independent samples. **Exclude hand calculations with unequal variance case**	9.3	#9.25, 26, 69 **HLS 5: 10.3 HT 2 means (σ unknown)** **Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	9.5	#9.47, 48, 49, 51 **HLS 6: 10.4 Compare μ's (dep. n)**
Week 5	F-test for two variances **right tailed tests- concept only**	9.4	#9.44 **Download Excel 2 Assignment**
	One-way analysis of variance. **Exclude test for equality of variance and Tukey test**	9.6	#9.57, 58, 60, 65 **HLS 7: 12.1 ANOVA** **Excel 1: Comparing population Means – Excel 1 Quiz (Finance)**
Week 6	C.I. for population proportion: **large samples only**. Determination of sample size	10.1	#10.7, 8, 9 **HSL 8: 9.2 HT proportions (Z)** **Excel 2: 1 way ANOVA Excel 2 Quiz (Marketing / Mgmt)**

DATE	TOPICS	SECTIONS	ASSIGNMENTS
Week 7	Hypothesis test for population proportion:	10.2	#10.17, 26, 27, 29 **large samples only**.

HLS 9:

9.1 HT proportions (p)

	Comparing two population props. - large	10.3	#10.31, 37, 59 independent samples.

HLS

10: 10.1 HT 2 proportions

*** Quiz 1 on HLS modules 8.3, 9.3, 9.4, 9.5, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
Certification on these modules (HLS assignments 1-8) is required to take the quiz.

Week 8	Catch up and Review		
	******* EXAM 1 *******		**Chap. 8 through 10**
	Exam and answer key are returned in next class		

Week 9	Chi-Square test for independence/homogeneity	10.4	#10.49, 64
	Exclude pooling of contingencies		
	Chi-Square test: p-values using chi-square tables		#10.65

HLS 11: 9.9 Chi-sq. test for association
Download Excel 3 Assignment

Spring Break: 3/17 – 3/23

Mar. 25 **(Tuesday- before 5 PM)** ********** LAST DAY TO DROP ***********
Last day to drop with consent of the instructor for W / WF

Week 10	Bi-variate data & correlation	11.1	#11.2, 3, 4
	Covariance & Least Squares Line		#11.7, 10
	Simple linear regression, model assumptions,	11.2	#11.18, 19, 21 meaning of s^2

HLS 12: 11.1 Scatter plots
HLS 13: 11.2 Fit linear model
Excel 3: Chi-Square test -
Excel 3 Quiz (Marketing)

DATE	TOPICS	SECTIONS	ASSIGNMENTS
Week 11	Simple linear regression: hypothesis test and C.I. for slope	11.3	#11.23, 24, 32
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	11.4	#11.37, 41
	Estimation/Prediction	11.5	#11.45, 53
	Residual analysis	11.6	#11.56
			HSL 14: 11.3 Regression anal. I
Week 12	Multiple regression:	12.1	#12.1, 6, 7 **HSL 15: 11.4 Multiple Regression** **HLS 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	12.2	#12.13, 15, 20
	Multicollinearity	12.3	#12.31, 32, 37 **Download Excel 4 Assignment**
Week 13	Dummy variables. Multiple regression using Excel	12.4	#12.55, 57, 60
	Step-wise Procedures, further residual analysis	12.4	
Week 14	Multiple Regression Cases and Examples		**Excel 4: Multiple Regression - Excel 4 Quiz (Real-Estate)**
	Multiple Regression Cases and Examples		

*** Quiz 2 on HLS modules 8.1, 9.1, 9.2, 9.9, 10.1, 11.2, 11.3 and 11.5 for 50 points***
Certification on these modules (HLS assignments 9-16) is required to take the quiz.

Week 15 (5/1) Prefinals week—catch-up and review.

Week 16: Comprehensive Final exam for DSCI3710. Same place and time as regular class.

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: 16 x 5 pts. = 80 pts .

No.		Module	Due Date
1	9.4	Hyp. test for μ (Z-value)	1/29
2	9.5	Hyp. test for mean (t-value)	2/5
3	9.3	Hyp. test for μ (p-value)	2/5
4	10.2	Comparing two means (large independent samples)	2/12
5	10.3	Comparing two means (small independent samples)	2/12
6	10.4	Comparing means (dependent samples)	2/15
7	12.1	ANOVA	2/22
8	9.2	Hyp. test for proportions (Z-value)	2/28
		HLS Quiz #1 (covering modules 1-8)	**2/28-3/2**
9	9.1	Hypothesis test for proportions (p-value)	3/14
10		10.1 Comparing 2 proportions (large independent samples)	3/14
11	9.9	Chi-sq. test for association	3/28
12	11.1	Scatter plots and Correlation	4/4
13	11.2	Fit linear model	4/4
14	11.3	Regression analysis I	4/11
15	11.4	Multiple Regression	4/18
16	11.5	ANOVA regression	4/18
		HLS Quiz #2 (covering modules 9-16)	**4/24-4/27**

Module registration is due by (11:59pm) of due date as "logged-in" on the Hawkes system. After completing a module in a campus lab or done at home, you should save the HLS certification code to your disk.

Late certifications are accepted, but at 50 % penalty (i.e. 2.5 pts.). If you certify but are unable to register, visit the instructor's office in order to resolve the problem. No late modules are taken after **the last class day before the final, 5/1**.

Excel Computer Exercises: The printed handout of your Excel assignment is required for completion of online quiz on each Excel assignment. Your grade is Excel assignment is based on the quiz: 4 x 5 pts. = 20 pts.

No	Topic	Quiz Date
Excel 1	**Comparing population Means (Finance)**	**2/14 – 2/17**
Excel 2	**1 way ANOVA (Marketing/ Management)**	**2/21 2/24**
Excel 3	**Chi-Square test (Marketing)**	**3/27 – 3/30**
Excel 4	**Multiple Regression (Real-Estate)**	**4/24 – 4/27**

Excel exercises are available in the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/msci3710/msci3710.htm   [**OR**: COBA Web site > Departments > ITDS > Courses > MSCI Undergraduate > MSCI3710]

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due dates. The quiz contains 5 questions (5 points) and students need to use their own assignment to answer the questions. Make-up quizzes are NOT given. **Late computer exercises are hand graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire assignment is complete and correct.

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will   request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:

1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

1. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment).   It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:_____

PHONE:_____ E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY:_____ DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION:_____ DO YOU WORK? YES/ NO, HRS.____

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature

DSCI 3710-090 Syllabus: Fall 2008

CLASS (DAY/TIME): Tuesdays from 6 to 8:50 pm in Room 104, Dallas Campus
INSTRUCTOR: Daniel D. Friesen
OFFICE: **PHONE:** 972.780.3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TR 3- 6 pm; W 4-6 pm; and by appointment

REQUIRED BOOKS & SOFTWARE: Several book options are listed so that if you took DSCI 2710 in the last year you can make use of the materials from that course in the most economical manner that we could arrange with the publisher.

1. **Textbook—any of the following:**
    a. **DSCI 3710 Business Statistics Online Access for UNT**, Thomson Learning / Cengage Learning, ISBN : 0324614047 . This option is for students that took DSCI 2710 in Spring 2008.
    b. **UNT Business Statistics: DSCI 2710/3710**, Thomson Learning / Cengage Learning, ISBN : 0324614055. This option is for students taking DSCI 2710 in Summer 2008 or later.
    c. **Introduction to Business Statistics, 6e – paperback copy with QC appendix chapter**, by Kvanli/Pavur/Keeling (KPK), Thomson publishing. This book is for students that took DSCI 2710 during Fall 2007. If you are using this older text you need to adjust the syllabus because the chapter numbers in the old book are 2 less than shown in the current topic list. For example, chapter 10 in the current book was 8 in the older textbook.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2008 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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**. Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes.

3. Optional Books:
    <u>Any Excel Primer</u> - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2. 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. 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. Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone the ITDS department for their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:

1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS tutorials (modules), WEBTESTS 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. **Late Excel Cases are typically not accepted.**

3.   **HLS Tutorial Exercises (module certifications):** Tutorial exercises using the **Hawkes Learning Systems (HLS): Business Statistics** are assigned. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

Late tutorial submissions receive only 50% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).*** See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

continued

4.	**Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final worth 200 points. No makeup exams are given; however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

HLS Quizzes: Each of the 2 HLS quizzes is a summary test of the modules completed prior to them. The quizzes can be done **only** on certification of these component/ prerequisite modules. Late registration of the modules may disable you from the HLS Quizzes. Any issues related to on-time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues can**not** be considered weeks later and especially not during compilation of the final grades, at the end of the semester.

> **Taking Online Excel and HLS Quizzes:** To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5.	**Grading:** The 16 HLS modules are worth a total of 80 points (@ 5 points each); The 4 online Excel case quizzes are worth a total of 20 points (@5 pts. each); The two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each); The in-class mid-term exam is worth 200 points, and the comprehensive final is worth 200 points.

6.	**Point Allocation:**

Mid-term Exam	
	200
HLS Tutorials and Excel Quizzes (16*5 pts + 4*5pts)	100
Online HLS quizzes (2 * 50 pts)	100
Final Exam	
	<u>200</u>
TOTAL:	
600	

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

7.	**Statistics Lab.** This is available in Denton for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems; it is not meant to be an extensive tutoring service. The Dallas Campus has a statistics tutor on staff. Hours and location will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES

1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:

   a) A 2.70 grade point average

   b) Completion of 45 hours of the pre-business course work,

   c) Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:

   Accounting 2020 and 2030 with grade "C" or better

   Economics 1100

   If you are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. Prybutok (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**.

3. As a general rule, the course format requires **no makeup exams** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.

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 Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.

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.

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).

continued

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. Some grounds for unsatisfactory progress are as follows:
     i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.
     ii. The student misses (providing no reason) / or is caught cheating on an examination. If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:
         o Written and valid doctor's excuse for illness,
         o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
         o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)
     If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.
     If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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.
     If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas. The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
August 25			Course policies
	Hypothesis testing for population mean - large samples. **Exclude**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain**
authorization code	**calculations of power and beta; concepts only**		
September 1	One-tailed test for μ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-**
value)			
	Use of p-values	10.3	#10.28, 32
September 8	Hypothesis tests for population mean -	10.4	#10.37, 38, 40, 41, 43, 53,
54			
	small n, introduction to t-tables		**HLS2: 9.6 HT mean (t-value)**
			HLS3: 9.4 HT means (p-value)
	C.I. & hypothesis test for two populations means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
September 15	C.I. & hypothesis test for two populations means - small independent samples. **Exclude**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means**
	(σ –		
	hand calculations with unequal variance case		**unknown)** **Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep. n)**
September 22	F-test for two variances **right tailed tests- concept only**	11.4	#11.37, 38 **Download Excel 2 Assignment**
	One-way analysis of variance. **Exclude** **test for equality of variance and Tukey test**	11.6	#11.57, 58, 60 **HLS 7: 12.1 ANOVA** **CASE 1: Comparing population Means - Excel Quiz 1 (Finance)**
September 29	C.I. for population proportion: **large samples**	12.1	#12.7, 8, 9

only. Determination of sample size

CASE 2: One-way ANOVA

Excel Quiz 2 (Marketing / Management)

Hypothesis test for population proportion: 12.2   #12.17, 26, 27

large samples only.

HLS 8: 9.3 HT proportions (Z)

HLS 9: 9.2 HT prop. (p-value) *

*HLS 9: 9.2 not on the HLS Q 1

WEEK	TOPICS	SECTIONS	CW, HW &

ASSIGNMENTS

October 6   Comparing two population props. - large   12.3   #12.31, 34, 37

independent samples.

HLS 10:10.1 HT 2 proportions
*HLS 10: 10.1 not on the

HLS Q 1

Catch up and Review

*** Quiz 1 on HLS modules 9.3, 9.4, 9.5, 9.6, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
Certification on these modules (HLS assignments 1-8) is required to take the quiz.

October 13   Catch up and Review   **Download Excel 3**
Assignment

******* EXAM 1 *******   **Chap. 8 through 10**

October 20   Chi-Square test for independence/homogeneity   12.4   #12.49, 64
Exclude pooling of contingencies
Chi-Square test: p-values using   #12.65
chi-square tables

HLS 11:
9.10 Chi-sq. test for association

October 27

Oct 28 (before 5 PM)   ********** LAST DAY TO DROP ***********
Last day to drop with consent of the instructor for W / WF

Bi-variate data & correlation   13.1   #13.2, 3, 4, 5
Covariance & Least Squares Line   #13.6, 7

HLS12: 11.1
Scatter Plots & Corr
Simple linear regression, model assumptions,   13.2
#13.18, 19
meaning of s^2 **HLS13: 11.2 Fit linear model**
CASE 3: Chi-Square test -
Excel Quiz 3 (Marketing)

November 3   Simple linear regression: hypothesis test and   13.3   #13.23, 24, 25
C.I. for slope
Coefficient of determination, danger of   13.4   #13.33, 37
assuming causality. **Exclude t-test for rho**
Estimation/Prediction   13.5   #13.45, 53
     Residual analysis   13.6   #13.66

HSL 14: 11.3 Regression

a
n
a
l
.

I

November 10	Multiple regression:	14.1	#14.1, 2, 6
			HSL 15: 11.4 Mult regression HSL 16: 11.5 ANOVA regression
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17
			Download Excel 4 Assignment
	Multicollinearity	14.3	#14.31, 32, 33

WEEK	TOPICS	SECTIONS	CW, HW &

ASSIGNMENTS

November 17 Dummy variables.   14.4   #14.39, 42, 49
Multiple regression **using Excel**
Step-wise Procedures, further residual analysis   14.4
Multiple Regression Cases and Examples   **CASE 4: Multiple**

Regression -

                                                                                     Excel Quiz 4 (Real-

Estate)

November 24 Multiple Regression Cases and Examples
Catch-up and review

*** Quiz 2 on HLS modules 9.2, 9.10, 10.1, 11.1, 11.2, 11.3, 11.4 and 11.5 for 50 points***
Certification on these modules (HLS assignments 9-16) is required to take the quiz.

Nov 27 – 28   Thanksgiving Holiday

December 1   Catch-up and review

December 8   **FINALS WEEK**
The Comprehensive Final Exam for DSCI3710-090 will be held on Tuesday, December 9,
from 6 pm to 8 pm,
in Room 336.

Certification due dates for the HLS: Business Statistics (HLS) Modules

    Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts</u>.

<u>No.</u>	<u>Module</u>	<u>Due Dates are listed in your HLS Progress Report</u>
1	9.5	Hyp. test for μ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for μ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (depend n)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)

HLS Quiz #1 (covering modules 1-8: Hyp. Test to ANOVA)

9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association
12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

HLS Quiz #2 (covering modules 9-16)

    Module certification is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a campus lab or done at home you should save the HLS certification code to your disk.

    Late certifications are accepted, but at <u>50</u>% penalty (for a max. of 2.5 pts.). If you certify but are unable to register, send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before the final**.

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: <u>4 x 5 pts. = 20 pts.</u>

<u>No</u>	<u>Topic</u>	<u>Quiz Dates are listed in your HLS Progress Report</u>
Excel CASE 1	Comparing population Means (Finance)	
Excel CASE 2	1 way ANOVA (Marketing/ Management)	
Excel CASE 3	Chi-Square test (Marketing)	
Excel CASE 4	Multiple Regression (Real-Estate)	

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT. After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

This page is intentionally blank so that you can remove and turn in the data sheet on the next page.

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

PHONE: E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY: DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION: DO YOU WORK? YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature   Date

CLASS (DAY/TIME): TR 6:00 – 9:50 pm
INSTRUCTOR: Daniel Friesen, Ph.D.
OFFICE: 201 N   **PHONE:** 972-780-3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TR 4-6 pm; MWF by appointment

REQUIRED BOOKS & SOFTWARE: If you took DSCI2710 at UNT, you can make use of the textbook and HLS software that your purchased for that course.
1. Use your textbook from DSCI2710 - **UNT Business Statistics: DSCI 2710/3710**, Cengage Learning.
2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2009 Version.* Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you already purchased an earlier version of the HLS software for DSCI 2710 or DSCI 3710, you do <u>NOT</u> need to purchase new HLS software. You can use the same access code and update the software via the update option within your software a new download from HLS.** Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes. See the **Student Getting Started Directions** page at the end of this syllabus.
3. **Optional Book:** <u>Any Excel Primer</u> - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1.   Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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 word format. The exams and assigned work reinforce the course objectives by simulating real business problems that require students to communicate.

CAMPUS CLOSING POLICY: In the event of an official campus closing, please check your UNT e-mail account (EagleConnect) or the HLS notice system for instructions about how to turn in various assignments, how the due dates are modified, etc.

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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone the ITDS department—or anyone else—for their final grade in the course. Final grades are only available electronically, either via MyUNT or via my email.

DSCI 3710 COURSE- SPECIFIC POLICIES:

1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS 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. **Late Excel Cases are accepted by the next class period after the quiz but are <u>hand-graded and have a 50% penalty</u>**. Thereafter, late Excel case assignments receive no credit.

3.   **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On

completion of a module, 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link:
http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >).

Late tutorial submissions receive only 80% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).*** See the attached sheet for a full set of HLS instructions.

4. **Exams:** There is one in-class mid-term exam worth 200 points and a departmental comprehensive final worth 200 points. No make up exams are given, however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

Each of the two HLS quizzes is a summary test of the modules completed prior to them. The quizzes can be done **only** after certifying these component/ prerequisite modules. Late registration of the modules may disable you from the HLS Quizzes. Any issues related to on-time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues **cannot** be considered weeks later and especially not during compilation of the final grades.

Taking Online Excel and HLS Quizzes: To take a quiz in HLS open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 80 points (@ 5 points each); The 4 online Excel case quizzes are worth a total of 20 points (@5 pts. each); The two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each); The in-class mid-term exam is worth 200 points, and the departmental comprehensive final is worth 200 points.

Point Allocation:

Mid-term Exam
                                                                 200
HLS Tutorials and Excel Quizzes (16*5 pts + 4*5pts)   100
Online HLS quizzes (2 * 50 pts)   100
Final Exam
                                                                  200

                                                    TOTAL:
                                         600

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

6.   **Statistics Lab in Denton.** This is available for students seeking additional help. Hours and
        venue will be discussed in class, as necessary. The purpose of the lab is to assist students to
        overcome difficulties they may encounter in attempting statistics problems. It is not meant
        to be an extensive tutoring service. At specified times, a DSCI tutor will also be stationed in
        the general access computer lab on the 3rd floor of the BA building to assist students having
        difficulty with their computer assignments. Hours will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES
1.   To be eligible for enrollment in upper-level business courses, students must have satisfied
        all of the following requirements:
        a)   A 2.70 grade point average
        b)   Completion of 45 hours of the pre-business course work,
        c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a
                grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as
                well **BCIS 2610**. In addition, students are required to have completed:
                        Accounting 2020 and 2030 with grade "C" or better
                        Economics 1100
        If you are a business major (including business undecided or pre-accounting majors)
        enrolled in upper-level business courses and do not meet these requirements, please drop the
        upper-level courses immediately in order to receive a refund of your tuition. If you choose
        not to drop, the Dean's office will administratively cancel your enrollment in those courses.
        In that event, you will **not** receive a tuition refund.
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. Prybutok (the course coordinator) and
        then the ITDS Department Chair, but **only after discussing it with your instructor**. On the
        Dallas campus, the point of contact is Dr. Jean Keller.
3.   As a general rule, the course format requires **no make-up exam** be given. The grade of "I"
        is not given except for rare and very unusual emergencies, as per University guidelines.
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. Please have a
        picture ID in your possession when taking all exams.
5.   Code of Conduct and Ethics: The policies for this course are consistent with those in the
        University of North Texas Student Guidebook. You are responsible for familiarizing
        yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:
   i. The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.
   ii. The student misses (providing no reason)/ or is caught cheating on an examination. If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:
      o Written and valid doctor's excuse for illness
      o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
      o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)
      If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

   If a student misses the final exam, he or she must provide the information defined above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the only circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used to substitute for poor performance in class.**

   If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held with the Director of Student Life, Laura Smith.

   The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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").

Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook; however, you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook. Dates refer to when assignments are covered in class – due dates are listed in HLS

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
6/8			
	Course policies		
	Hypothesis testing for	10.1	#10.1, 4, 5, 7, 8, 9
	population mean - large samples. **Exclude**		**HLS: Obtain**
authorization code			
	calculations of power and beta; concepts only		
	One-tailed test for μ with large n	10.2	#10.19, 20, 22
			HLS1: 9.5 HT means (Z-
value)			
6/10			
	Use of p-values	10.3	#10.28, 32
	Hypothesis tests for population mean -	10.4	#10.37, 38, 40, 41, 43, 53, 54
	small n, introduction to t-tables		**HLS2: 9.6 HT mean (t-**
value)			
			HLS3: 9.4 HT means (p-value)
	C.I. & hypothesis test for two populations	11.1-11.2	#11.3, 9, 10, 13, 15
	means - large independent samples.		**HLS4:10.2 HT 2 means (σ known)**
6/15			
	C.I. & hypothesis test for two populations	11.3	#11.25, 26
	means - small independent samples. **Exclude**		**HLS5: 10.3 HT 2 means**
		(σ –	
	hand calculation for DF with unequal variance case		**unknown)**
			Download Excel 1 Assignment
	Paired (dependent) small samples from	11.5	#11.47, 48, 49, 51
	two populations.		**HLS6: 10.4 Compare μ's (dep. n)**
	F-test for two variances	11.4	#11.37, 38
	right tailed tests- concept only		**Download Excel 2 Assignment**

One-way analysis of variance.   11.6   #11.57, 58, 60
Exclude calculations for test for equality   **HLS 7: 12.1 ANOVA**
of variance and hand calculation for Tukey test

DATE	TOPICS	SECTIONS	CW, HW &
	ASSIGNMENTS		

6/17

	C.I. for population proportion: **large samples only**. Determination of sample size	12.1	#12.7, 8, 9

CASE 2: One-way ANOVA

Hypothesis test for population proportion: Large samples		**Excel Quiz 2 (Marketing / Management)**

HLS 8: 9.3 HT proportions (Z)

Hypothesis test for population proportion:	12.2	#12.17, 26, 27 **large samples only** continued

HLS 9: 9.2 HT prop. (p-value) *
***HLS 9: 9.2 not on the HLS Q 1**

Comparing two population props. - large	12.3	#12.31, 34, 37 independent samples.

HLS 10:10.1 HT 2 proportions
***HLS 10: 10.1 not on the**

HLS Q 1

CASE 1: Comparing population Means - Excel Quiz 1   **(Multicultural / International Finance)**

Take the online HLS 50 point Quiz
*** Quiz 1 on HLS modules 9.3, 9.4, 9.5, 9.6, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
Certification on these modules (HLS assignments 1-8) is required to take the quiz.

6/22

	Catch up and Review		

******* EXAM 1 *******		**Chap. 10 through 12**
Exam and answer key are returned in next class		

Chi-Square test for independence/homogeneity **Exclude pooling of contingencies**	12.4	#12.49, 64

Download Excel 3 Assignment

Chi-Square test: p-values using		#12.65

chi-square tables

Bi-variate data & correlation	13.1	#13.2, 3, 4, 5
Covariance & Least Squares Line		#13.6, 7

DATE	TOPICS	SECTIONS	CW, HW &

ASSIGNMENTS

6/24

	Simple linear regression, model assumptions, meaning of s^2	13.2	#13.18, 19 **HLS13: 11.2 Fit linear model** **CASE 3: Chi-Square test -** **Excel Quiz 3 (Marketing)**
	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37 **HSL 14: 11.3 Regression**

a
n
a
l
.

I

6/29

	Estimation/Prediction	13.5	#13.45, 53
	Residual analysis	13.6	#13.66
	Multiple regression: **using Excel**	14.1	#14.1, 2, 6
			HSL 15: 11.4 Mult regression HSL 16: 11.5 ANOVA regression
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4** **Assignment**
	Multicollinearity	14.3	#14.31, 32, 33

7/1

	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
Regression -	Multiple Regression Cases and Examples		**CASE 4: Multiple**
Estate)			**Excel Quiz 4 (Real-**
	Multiple Regression Cases and Examples		

*** Quiz 2 on HLS modules 9.2, 9.10, 10.1, 11.1, 11.2, 11.3, 11.4 and 11.5 for 50

points***

Certification on these modules (HLS assignments 9-16) is required to take the quiz.

7/6

Catch-up and review

7/8   FINAL
The Comprehensive Final Exam for DSCI3710 will be held at the time and day that class meets.

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: 16 x 5 pts. = 80 pts .

No.	Due	Module	Due Dates are also listed in your HLS Progress Report
1	6/15	9.5	Hyp. test for µ (Z-value)
2	6/17	9.6	Hyp. test for mean (t-value) – Experiential in class exercise associated with lesson
3	6/17	9.4	Hyp. test for µ (p-value)
4	6/17	10.2	Comparing two means (sigma known)
5	6/22	10.3	Comparing two means (sigma unknown)
6	6/22	10.4	Comparing means (depend n)
7	6/22	12.1	ANOVA
8	6/24	9.3	Hyp. test for proportions (Z-value)

HLS Quiz #1 (covering modules 1-8, Hyp. Test to ANOVA, certification is required to take the quiz)
6/24-6/27

No.	Due	Module	
9	6/24	9.2	Hypothesis test for proportions (p-value)
10	6/24	10.1	Comparing 2 proportions (large independent samples)
11	6/29	9.10	Chi-sq. test for association
12	6/29	11.1	Scatter plots and Correlation
13	7/1	11.2	Fit linear model
14	7/1	11.3	Regression analysis I
15	7/6	11.4	Multiple Regression
16	7/6	11.5	ANOVA regression

HLS Quiz #2 (covering modules 9-16, certification is required to take the quiz) 7/6-7/8

Module registration is due by 11:59pm of due date as "logged-in" on the WEB registration system. After completing a module in a COBA lab, campus lab or done at home you should save the HLS certification code to your disk. You cannot enter certification codes by typing in the code.

Late certifications are accepted, but at 20 % penalty. If you certify but are unable to register, send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before 7/8/10**.

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 5 pts. = 20 pts.

No	Date	Topic
Excel CASE 1	**6/20**	**Comparing population Means (Multicultural and International Finance)**
Excel CASE 2	**6/20**	**1 way ANOVA (Marketing/ Management)**
Excel CASE 3	**6/27**	**Chi-Square test (Marketing)**
Excel CASE 4	**7/8**	**Multiple Regression (Real-Estate)**

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own analysis printout to answer the questions. Make-up quizzes are only given if arranged with your instructor. **Late Excel cases are hand-graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire case analysis is complete and correct.

Student Getting Started Directions – see http://www.hawkeslearning.com/ for help

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

1. Go to www.hawkeslearning.com and click on **get your access code**. Phone HLS at 843-571-2825 for help
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO DOWNLOAD and INSTALL THE HLS SOFTWARE AT HOME: use the update option instead if you have a version from a prior term

1. Go to the HLS site and select the Downloads Page from the list on the left
2. Select Business Statistics product from the drop down list.
3. Click on the Full Install download option.
4. When prompted, save the Installer program to your Desktop folder.
5. After the file is saved to your desktop, double click on it to begin the installation. Please follow the prompts.
6. When prompted for the Course ID enter **UNTBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."
7. If you prefer, HLS can send you new CDs. There is a $5.00 shipping and handling cost. These disks do NOT include a license number or Access Code you will have to purchase those separately. To purchase the CDs for installation purposes go to http://hawkespublishing.stores.yahoo.net/cdsonly.html

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

1. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT. After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
        - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
        - click the Submit Certificate(s) link
        - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
        - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.

This page is intentionally blank so that you can remove and turn in the data sheet on the next page.

DSCI 3710: STUDENT DATA SHEET

NAME: _____

MAILING ADDRESS: _____

PHONE:_____   E-Mail:_____

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY:_____   DEGREE PROGRAM:
_____

EXPECTED DATE OF GRADUATION:_____   DO YOU WORK?   YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:_____

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature   Date

CLASS (DAY/TIME): MW 6:00 – 9:50 pm
INSTRUCTOR: Daniel Friesen, Ph.D.
OFFICE: 201 N   **PHONE:** 972-780-3085
E-MAIL: dfriesen@unt.edu
OFFICE HRS: MW 4-6 pm; MTWRF by appointment

REQUIRED BOOKS & SOFTWARE: If you took DSCI2710 at UNT, you can make use of the textbook and HLS software that your purchased for that course.
1. Use your textbook from DSCI2710 - **UNT Business Statistics: DSCI 2710/3710**, Cengage Learning.
2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2009 Version.* Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you already purchased an earlier version of the HLS software for DSCI 2710 or DSCI 3710, you do <u>NOT</u> need to purchase new HLS software. You can use the same access code and update the software via the update option within your software a new download from HLS.** Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes. See the **Student Getting Started Directions** page at the end of this syllabus.
3. **Optional Book:** <u>Any Excel Primer</u> - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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 word format. The exams and assigned work reinforce the course objectives by simulating real business problems that require students to communicate.

CAMPUS CLOSING POLICY: In the event of an official campus closing, please check your UNT e-mail account (EagleConnect) or the HLS notice system for instructions about how to turn in various assignments, how the due dates are modified, etc.

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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2.   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.   Regular and punctual attendance for the **full** period of each class is expected (irrespective of whether roll calls are made or otherwise). 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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone the ITDS department—or anyone else—for their final grade in the course. Final grades are only available electronically, either via MyUNT or via my email.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS 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. **Late Excel Cases are accepted by the next class period after the quiz but are <u>hand-graded and have a 50% penalty</u>**. Thereafter, late Excel case assignments receive no credit.
3.   **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. On completion of a module, 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >).

Late tutorial submissions receive only 80% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).***   See the attached sheet for a full set of HLS instructions.

4. **Exams:** There is one in-class mid-term exam worth 200 points and a departmental comprehensive final worth 200 points. No make up exams are given, however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

Each of the two HLS quizzes is a summary test of the modules completed prior to them. The quizzes can be done **only** after certifying these component/ prerequisite modules. Late registration of the modules may disable you from the HLS Quizzes. Any issues related to on-time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues **cannot** be considered weeks later and especially not during compilation of the final grades.

Taking Online Excel and HLS Quizzes: To take a quiz in HLS open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 80 points (@ 5 points each); The 4 online Excel case quizzes are worth a total of 20 points (@5 pts. each); The two online HLS module quizzes are worth a total of 100 points (@ 50 pts. each); The in-class mid-term exam is worth 200 points, and the departmental comprehensive final is worth 200 points.

Point Allocation:

Mid-term Exam

	200
HLS Tutorials and Excel Quizzes (16*5 pts + 4*5pts)	100
Online HLS quizzes (2 * 50 pts)	100
Final Exam	
	200
	TOTAL:
	600

Letter Grades:
$$540+ = A$$
$$480+ = B$$
$$420+ = C$$
$$360+ = D$$
$$\text{Below } 360 = F$$

6.   **Statistics Lab in Denton.** This is available for students seeking additional help. Hours and venue will be discussed in class, as necessary. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems. It is not meant to be an extensive tutoring service. At specified times, a DSCI tutor will also be stationed in the general access computer lab on the 3rd floor of the BA building to assist students having difficulty with their computer assignments. Hours will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES
1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
a)   A 2.70 grade point average
b)   Completion of 45 hours of the pre-business course work,
c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **MSCI 2710 / DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
           Accounting 2020 and 2030 with grade "C" or better
           Economics 1100
If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. Prybutok (the course coordinator) and then the ITDS Department Chair, but **only after discussing it with your instructor**. On the Dallas campus, the point of contact is Dr. Jean Keller.
3.   As a general rule, the course format requires **no make-up exam** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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. Please have a picture ID in your possession when taking all exams.
5.   Code of Conduct and Ethics: The policies for this course are consistent with those in the University of North Texas Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.
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.

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. Some grounds for unsatisfactory progress are as follows:

    i. The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.

    ii. The student misses (providing no reason)/ or is caught cheating on an examination. If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:
    - o Written and valid doctor's excuse for illness
    - o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
    - o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

    If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

    If a student misses the final exam, he or she must provide the information defined above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the only circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used to substitute for poor performance in class.**

    If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held with the Director of Student Life, Laura Smith.

    The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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").

Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook; however, you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook. Dates refer to when assignments are covered in class – due dates are listed in HLS

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
7/12			
	Course policies		
	Hypothesis testing for population mean - large samples. **Exclude**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain**
authorization code			
	calculations of power and beta; concepts only		
	One-tailed test for μ with known sigma	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-**
value)			
7/14			
	Use of p-values	10.3	#10.28, 32
	Hypothesis tests for population mean - Unknown sigma, introduction to t-tables **value)**	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-**
			HLS3: 9.4 HT means (p-value)
	C.I. & hypothesis test for two populations means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
7/19			
	C.I. & hypothesis test for two populations means - small independent samples. **Exclude**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means**
	(σ –		
	hand calculation for DF with unequal variance case		**unknown)**
			Download Excel 1 Assignment
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep. n)**
			Download Excel 2 Assignment

One-way analysis of variance. 11.6 #11.57, 58, 60
Exclude calculations for test for equality **HLS 7: 12.1 ANOVA**
of variance and hand calculation for Tukey test

C.I. for population proportion: **large samples** 12.1 #12.7, 8, 9
only. Determination of sample size

CASE 2: One-way
ANOVA

DATE	TOPICS	SECTIONS	CW, HW &

ASSIGNMENTS

7/21   **Test 1, Part 1**   **Chapters 10-11**

CASE 1: Comparing population Means - Excel Quiz 1   **(Multicultural / International Finance)**

Catch up on modules.

7/26   Hypothesis test for population proportion: 12.1   **Excel Quiz 2**
Large samples   **(Marketing / Management)**

                                                HLS 8: 9.3 HT proportions (Z)

Hypothesis test for population proportion: 12.2   #12.17, 26, 27
                                                  large samples
only continued

                                                  HLS 9: 9.2 HT prop. (p-value) *
*HLS 9: 9.2 not on the HLS Q 1

Comparing two population props. - large   12.3   #12.31, 34, 37
                                                  independent
samples.

                                                  HLS 10:10.1 HT 2 proportions
*HLS 10: 10.1 not on the

HLS Q 1

Chi-Square test for independence/homogeneity   12.4   #12.49, 64
     Exclude pooling of contingencies

                                                  Download Excel 3 Assignment

Chi-Square test: p-values using   #12.65
chi-square tables

                                                  HLS 11: 9.10 Chi-sq. test for association

CASE 2: 1-Way ANOVA   **(Marketing / Management)**

Take the 50 point HLS Quiz 1, online. It covers modules 9.3, 9.4, 9.5, 9.6, 10.2, 10.3, 10.4, & 12.1. Certification on these modules is required to take the quiz.

DATE	TOPICS ASSIGNMENTS	SECTIONS	CW, HW &
7/28	**Test 1 Part 2: chapter 12.**		
	Bi-variate data & correlation Covariance & Least Squares Line	13.1	#13.2, 3, 4, 5 #13.6, 7
			HLS12: 11.1 Scatter Plots & Corr
	Simple linear regression, model assumptions, meaning of s^2	13.2	#13.18, 19 **HLS13: 11.2 Fit linear model CASE 3: Chi-Square test - Excel Quiz 3 (Marketing)**
	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37 **HSL 14: 11.3 Regression**

a
n
a
l
.

I

        CASE 3: Chi-Square Test   **(Marketing)**

DATE	TOPICS	SECTIONS	CW, HW &
8/2	Estimation/Prediction Residual analysis	13.5 13.6	#13.45, 53 #13.66
	Multiple regression: **using Excel**	14.1	#14.1, 2, 6
			HSL 15: 11.4 Mult regression HSL 16: 11.5 ANOVA regression
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
8/4	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49

Further residual analysis	14.4

Multiple Regression Cases and Examples **CASE 4: Multiple Regression -**

Excel Quiz 4 (Real-Estate)

8/9 Catch-up and review

CASE 4: Multiple Regression **(Real Estate)**

*** Quiz 2 on HLS modules 9.2, 9.10, 10.1, 11.1, 11.2, 11.3, 11.4 and 11.5 for 50 points*** Certification on these modules (HLS assignments 9-16) is required to take the quiz.

8/11 FINAL
The Comprehensive Final Exam for DSCI3710 will be held at the time and day that class meets.

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts .</u>

No.	Due	Module	Due Dates are also listed in your HLS Progress Report
1	7/15	9.5	Hyp. test for μ (Z-value)
2	7/20	9.6	Hyp. test for mean (t-value) – Experiential in class exercise associated with lesson
3	7/20	9.4	Hyp. test for μ (p-value)
4	7/20	10.2	Comparing two means (sigma known)
5	7/23	10.3	Comparing two means (sigma unknown)
6	7/23	10.4	Comparing means (depend n)
7	7/23	12.1	ANOVA
8	7/27	9.3	Hyp. test for proportions (Z-value)

HLS Quiz #1 (covering modules 1-8, Hyp. Test to ANOVA, certification is required to take the quiz)
7/27-8/2

9	7/30	9.2	Hypothesis test for proportions (p-value)
10	7/30	10.1	Comparing 2 proportions (large independent samples)
11	7/30	9.10	Chi-sq. test for association
12	8/04	11.1	Scatter plots and Correlation
13	8/04	11.2	Fit linear model
14	8/09	11.3	Regression analysis I
15	8/09	11.4	Multiple Regression
16	8/09	11.5	ANOVA regression

HLS Quiz #2 (covering modules 9-16, certification is required to take the quiz) 8/9-8/13

Module registration is due by 11:59pm of due date as "logged-in" on the WEB registration system. After completing a module in a COBA lab, campus lab or done at home you should save the HLS certification code to your disk. You cannot enter certification codes by typing in the code.

Late certifications are accepted, but at <u> 20 </u>% penalty. If you certify but are unable to register, send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before 7/8/10**.

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 5 pts. = 20 pts.

No	Date	Topic
Excel CASE 1	**7/21**	**Comparing population Means (Multicultural and International Finance)**
Excel CASE 2	**7/26**	**1 way ANOVA (Marketing/ Management)**
Excel CASE 3	**7/28**	**Chi-Square test (Marketing)**
Excel CASE 4	**8/9**	**Multiple Regression (Real-Estate)**

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own analysis printout to answer the questions. Make-up quizzes are only given if arranged with your instructor. **Late Excel cases are hand-graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 2.5 points is obtainable providing the entire case analysis is complete and correct.

Student Getting Started Directions – see http://www.hawkeslearning.com/ for help

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**. Phone HLS at 843-571-2825 for help
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO DOWNLOAD and INSTALL THE HLS SOFTWARE AT HOME: use the update option instead if you have a version from a prior term
1. Go to the HLS site and select the Downloads Page from the list on the left
2. Select Business Statistics product from the drop down list.
3. Click on the Full Install download option.
4. When prompted, save the Installer program to your Desktop folder.
5. After the file is saved to your desktop, double click on it to begin the installation. Please follow the prompts.
6. When prompted for the Course ID enter **UNTBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."
7. If you prefer, HLS can send you new CDs. There is a $5.00 shipping and handling cost. These disks do NOT include a license number or Access Code you will have to purchase those separately. To purchase the CDs for installation purposes go to http://hawkespublishing.stores.yahoo.net/cdsonly.html

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT. After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.

This page is intentionally blank so that you can remove and turn in the data sheet on the next page.

DSCI 3710: STUDENT DATA SHEET

NAME: _____

MAILING ADDRESS: _____

PHONE: _____   E-Mail: _____

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY: _____   DEGREE PROGRAM:
_____

EXPECTED DATE OF GRADUATION: _____   DO YOU WORK?   YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS: _____

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature   Date

DSCI 3710-090 Syllabus: Fall 2010

CLASS (DAY/TIME): Tuesdays from 7 to 9:50 pm in Room 336, Dallas Building #1
INSTRUCTOR: Daniel D. Friesen
OFFICE: Dal2 236   **PHONE:** 972.338.1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: MW 1:00 – 4:00 pm; TR 4- 7 pm; and by appointment

1. **Textbook**
    a. **Business Statistics: Courseware Edition**, by Kvanli, Pavur, and Keeling. Published by Thomson Learning / Cengage Learning, ISBN : 978-1-111-40020-0.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2010 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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**. Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes.

3. Optional Books:
    Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2.   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.   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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone ANYONE to obtain their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS tutorials (modules), WEBTESTS 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. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through

COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

Late tutorial submissions receive 80% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).*** See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final worth 200 points. No makeup exams are given; however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

   HLS Quizzes: Each of the 2 HLS quizzes is a summary test of the modules completed prior to them. The quizzes can be done **only** on certification of these component/ prerequisite modules. Late registration of the modules may disable you from the HLS Quizzes. Any issues related to on-time completion or credit for the modules and online quizzes should be resolved with the instructor within one week following their respective due dates. Such issues can**not** be considered weeks later and especially not during compilation of the final grades, at the end of the semester.

   Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 80 points (@ 5 points each); The 4 online Excel case quizzes are worth a total of 20 points (@5 pts. each); The two online HLS module quizzes are worth a total of 100 points (@ 50 pts. 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 (16*5 pts + 4*5pts)	100
Online HLS quizzes (2 * 50 pts)	100
Final Exam	<u>200</u>
TOTAL:	600

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

6. **Statistics Lab.** This is available in Denton for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems; it is not meant to be an extensive tutoring service. The Dallas Campus has a statistics tutor on staff. Hours and location will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES

1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a)   A 2.70 grade point average
   b)   Completion of 45 hours of the pre-business course work,
   c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 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 are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. Yasin (Dean of the Urban and Professional Studies Division).
3. As a general rule, the course format requires **no makeup exams** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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 Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:

   i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

   ii. The student misses (providing no reason) / or is caught cheating on an examination. If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

      o Written and valid doctor's excuse for illness,
      o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
      o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

   If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

   If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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. If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held in the Dean of Students Office, University of North Texas. The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNM'TS
August 30			Course policies
	Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain authorization code**
September 6	One-tailed test for μ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-value)**
	Use of p-values	10.3	#10.28, 32
	Labor Day Holiday 9/6		
September 13	Hypothesis tests for population mean - small n, introduction to t-tables	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-value)** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
September 20	C.I. & hypothesis test for two populations means - small independent samples. **Exclude hand calculations with unequal variance case**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means (σ – unknown)**
			Download Excel 1 Assignment
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep)**
September 27	F-test for two variances **right tailed tests- concept only**	11.4	#11.37, 38
			Download Excel 2 Assignment
	One-way analysis of variance. **Exclude test for equality of variance and Tukey test**	11.6	#11.57, 58, 60 **HLS 7: 12.1 ANOVA**
			CASE 1: Comparing population Means - Excel Quiz 1 (Finance)

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS

October 4   C.I. for population proportion: **large samples only**. Determination of sample size   12.1   #12.7, 8, 9

**CASE 2:
One-way ANOVA**

**Excel Quiz 2
(Marketing / Management)**

Hypothesis test for population proportion: 12.2   #12.17, 26, 27
large samples only.

**HLS 8: 9.3 HT
proportions (Z)
HLS 9: 9.2 HT prop. (p-value)***

*HLS 9: 9.2 not on the HLS Q 1

October 11   Comparing two population props. - large   12.3   #12.31, 34, 37
independent samples.

**HLS 10:10.1 HT 2
proportions
(not on the HLS Quiz 1)**

Catch up and Review

*** Quiz 1 on HLS modules 9.3, 9.4, 9.5, 9.6, 10.2, 10.3, 10.4, and 12.1 for 50 points ***
**Certification on these modules (HLS assignments 1-8) is required to take the quiz.
10/9-10/14**

October 18   Catch up and Review   **Download Excel 3 Assignment**
******* EXAM 1 (chapters 10-12)******

October 25   Chi-Square test for independence/homogeneity   12.4   #12.49, 64
Exclude pooling of contingencies

Chi-Square test: p-values using   #12.65
chi-square tables

**HLS 11: 9.10 Chi-sq.
test for association**

Oct 29 (before 5 PM)   ******** LAST DAY TO DROP *********
Last day to drop with consent of the instructor for W / WF

November 1

Bi-variate data & correlation   13.1   #13.2, 3, 4, 5
Covariance & Least Squares Line   #13.6, 7

**HLS12: 11.1 Scatter
Plots & Corr**

Simple linear regression,
model assumptions,   13.2
#13.18, 19

meaning of s^2 **HLS13: 11.2 Fit linear model**

CASE 3: Chi-Square test -
      Excel Quiz 3 (Marketing)

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
November 8	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37
	Estimation/Prediction	13.5	#13.45, 53
	Residual analysis	13.6	#13.66 **HSL 14: 11.3 Regression anal. I**
November 15	Multiple regression:	14.1	#14.1, 2, 6 **HSL 15: 11.4 Mult regression** **HSL 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
November 22	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
			CASE 4: Multiple Regression - Excel Quiz 4 (Real-Estate)

Nov 25 – 26   Thanksgiving Holiday

November 29 Multiple Regression Cases and Examples
Catch-up and review

*** Quiz 2 on HLS modules 9.2, 9.10, 10.1, 11.1, 11.2, 11.3, 11.4 and 11.5 for 50 points***
Certification on these modules (HLS assignments 9-16) is required to take the quiz.
11/29-12/5

December 6   Catch-up and review

December 13 **FINALS WEEK**
The Comprehensive Final Exam for DSCI3710-090 will be held on Tuesday,
December 14,
from 7 pm to 9 pm,
in Room 336.

Certification due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts</u> .

<u>No.</u>	<u>Module</u>	
1	9.5	Hyp. test for μ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for μ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (depend n)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)

These modules are due by 10/11/2010. You will not be able to complete Quiz 1 without them.

9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association
12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

These modules are due by 11/29/2010.

Module certification is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a campus lab or done at home you should save the HLS certification code to your disk.

Late certifications are accepted, but at 2<u>0</u>% penalty. If you certify but are unable to register, come see me. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before the final**.

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 5 pts. = 20 pts.

<u>No</u>	<u>Topic</u>	<u>Quiz Dates</u>
Excel CASE 1	Comparing population Means (Finance)	9/25-9/29
Excel CASE 2	1 way ANOVA (Marketing/ Management)	10/2-10/6
Excel CASE 3	Chi-Square test (Marketing)	10/30-11/3
Excel CASE 4	Multiple Regression (Real-Estate)	11/20-11/24

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

PHONE: E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY: DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION: DO YOU WORK? YES/ NO, HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature   Date

DSCI 3710-090 Syllabus: Spring 2011

CLASS (DAY/TIME): **MW** 2:30 to 3:50 pm in Room 304, Dallas Building #2
INSTRUCTOR: Daniel D. Friesen
OFFICE: Dal2 236   **PHONE:** 972.338.1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: MW 4:00 – 6:00 pm; TR 1- 4 pm; and by appointment

1. **Textbook**
   a. **Business Statistics: Courseware Edition**, by Kvanli, Pavur, and Keeling. Published by Thomson Learning / Cengage Learning, ISBN : 978-1-111-40020-0.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2010 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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 Books:
   Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2. 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. 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. Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone ANYONE to obtain their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1. **Homework:** Homework is assigned and should be completed when due. While only the HLS tutorials (modules), WEBTESTS 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. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through

COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

Late tutorial submissions may receive 80% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 - formerly MSCI2710 or MSCI3710).*** See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final worth 200 points. No makeup exams are given; however, if a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final will 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.

Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@ 10 pts. 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 (16*10 pts + 4*10pts)	200
Final Exam	
	<u>200</u>
	TOTAL:
600	

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

6. **Statistics Lab.** This is available in Denton for students seeking additional help. Hours and venue will be announced in class. The purpose of the lab is to assist students to overcome difficulties they may encounter in attempting statistics problems; it is not meant to be an extensive tutoring service. The Dallas Campus has a statistics tutor on staff. Hours and location will be announced in class.

DEPARTMENT, COLLEGE, and OTHER POLICIES

1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
    a) A 2.70 grade point average
    b) Completion of 45 hours of the pre-business course work,
    c) Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 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 are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. Yasin (Dean of the Urban and Professional Studies Division).
3. As a general rule, the course format requires **no makeup exams** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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 Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:

    i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

    ii. The student misses (providing no reason) / or is caught cheating on an examination. If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:
       o Written and valid doctor's excuse for illness,
       o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
       o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

    If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

    If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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.
    If a student is caught cheating, he or she 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 Life.
    The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.

DSCI 3710 – Topics

HLS – **HLS: Business Statistics tutorials (**In the listing below HT stands for Hypothesis Testing.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNM'TS
January 17			Course policies, brief review
January 24	Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain authorization code**
January 31	One-tailed test for µ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-value)**
	Use of p-values	10.3	#10.28, 32
February 7	Hypothesis tests for population mean - small n, introduction to t-tables	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-value)** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
February 14	C.I. & hypothesis test for two populations means - small independent samples. **Exclude hand calculations with unequal variance case**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means (σ – unknown)**
			Download Excel 1 Assignment
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare µ's (dep)**
February 21	F-test for two variances **right tailed tests-concept only**	11.4	#11.37, 38
			Download Excel 2 Assignment
	One-way analysis of variance. **Exclude test for equality of variance and Tukey test**	11.6	#11.57, 58, 60 **HLS 7: 12.1 ANOVA**
			CASE 1: Comparing population Means - Excel Quiz 1 (Finance)

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
February 28	C.I. for population proportion: **large samples only**. Determination of sample size	12.1	#12.7, 8, 9
			CASE 2: One-way ANOVA
			Excel Quiz 2 (Marketing / Management)
	Hypothesis test for population proportion:	12.2	#12.17, 26, 27 **large samples only**.
			HLS 8: 9.3 HT proportions (Z) **HLS 9: 9.2 HT prop. (p-value)**
March 7	Comparing two population props. - large	12.3	#12.31, 34, 37 independent samples.
			HLS 10:10.1 HT 2 proportions
	Catch up and Review		
March 14	**Spring Break**		
March 21	Catch up and Review ********* EXAM 1 (chapters 10-12.3)********		**Download Excel 3 Assignment**
March 28	Chi-Square test for independence/homogeneity **Exclude pooling of contingencies**	12.4	#12.49, 64
	Chi-Square test: p-values using chi-square tables		#12.65
			HLS 11: 9.10 Chi-sq. test for association
April 4	Bi-variate data & correlation Covariance & Least Squares Line	13.1	#13.2, 3, 4, 5 #13.6, 7
			HLS12: 11.1 Scatter Plots & Corr
			Simple linear regression, model assumptions, 13.2 #13.18, 19
	meaning of s^2		**HLS13: 11.2 Fit linear model**
			CASE 3: Chi-Square test - Excel Quiz 3 (Marketing)

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
April 11	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37
	Estimation/Prediction	13.5	#13.45, 53
	Residual analysis	13.6	#13.66 **HSL 14: 11.3 Regression analy I**
April 18	Multiple regression:	14.1	#14.1, 2, 6 **HSL 15: 11.4 Mult regression** **HSL 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
April 25	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
			CASE 4: Multiple Regression - Excel Quiz 4 (Real-Estate)
May 2	Multiple Regression Cases and Examples Catch-up and review		
May 9	**FINALS WEEK**		

Certification due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 10 pts. = 160 points</u>

<u>No.</u>	<u>Module</u>	
1	9.5	Hyp. test for μ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for μ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (depend n)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)

These modules are due by 3/21/2011. You will not be able to complete Quiz 1 without them.

9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association
12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

These modules are due by 5/4/2011.

Module certification is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a campus lab or done at home you should save the HLS certification code to your disk.

Late certifications are accepted, but at 2<u>0</u>% penalty. If you certify but are unable to register, come see me. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after **the last class day before the final**.

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.

<u>No</u>	<u>Topic</u>	<u>Quiz Dates</u>
Excel CASE 1	Comparing population Means (Finance)	2/25-2/28
Excel CASE 2	1 way ANOVA (Marketing/ Management)	3/7-3/11
Excel CASE 3	Chi-Square test (Marketing)	4/11-4/15
Excel CASE 4	Multiple Regression (Real-Estate)	5/2-5/6

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.

See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710: STUDENT DATA SHEET

NAME:

MAILING ADDRESS:

PHONE: E-Mail:

GRADE RECEIVED IN LAST COLLEGE MATH COURSE:

FIELD OF STUDY: DEGREE PROGRAM:

EXPECTED DATE OF GRADUATION: DO YOU WORK?   YES/ NO,   HRS.

YOUR CURRENT ENROLLMENT CREDIT HRS:

YOUR WORK EXPERIENCE:

WHY DO YOU WANT TO GET A COLLEGE DEGREE?

WHY HAVE YOU CHOSEN YOUR CURRENT MAJOR?

WHAT DO YOU BELIEVE YOU WILL BE DOING IN YOUR CAREER 10 YRS FROM NOW?

HOW DO YOU RATE YOUR LIKING FOR STATISTICS, from 1 (LOW) to 10 (HIGH)?

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

Signature   Date

CLASS day & time: TR 6:00 – 9:50 pm
INSTRUCTOR: Daniel Friesen, Ph.D.
OFFICE: Dal 2, rm 236   **PHONE:** 972-338-1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TR 2-5 pm; MTWRF by appointment

REQUIRED BOOKS & SOFTWARE:

1. Use your textbook from DSCI 2710 - **UNT Business Statistics: DSCI 2710/3710**, Cengage Learning.
2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2010 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 the HLS software for DSCI 2710 or DSCI 3710, you do NOT need to purchase new HLS software. You can use the same access code and update the software via the update option within your software.** Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes. See the **Student Getting Started Directions** page at the end of this syllabus.
3. **Optional Book:** Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1.   Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 invited 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 the 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 a verbal narrative format. The exams and assigned work reinforce the course objectives by simulating real business problems that require students to communicate.

CAMPUS CLOSING POLICY: In the event of an official campus closing, please check your UNT e-mail account (EagleConnect) or the HLS notice system for instructions about how to turn in various assignments, how the due dates are modified, etc.

GENERAL COMMENTS
1.   Doing the assignments is essential for success in this course. In fact, the assignments constitute a significant portion of your grade in this course. Students are encouraged to keep up with the homework and meet the submission deadlines.

2.   Do 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.   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 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. Such an excuse is to be provided to the instructor in writing, as early as possible.

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

5.   Students are requested not to phone the ITDS department—or anyone else—for their final grade in the course. Final grades are available only electronically, via MyUNT.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS 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.
3.   **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. These form a significant part of the course grade and **must be registered in the HLS Web database by the due date** to receive full credit. On completion of a module, 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTDBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through

COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >).

Late tutorial submissions receive only 80% credit, provided they are registered by **the last class day before the final**. No credit is awarded for any tutorial exercise completed after the last class day before the final. ***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 originally used, 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).*** See the attached sheet for a full set of HLS instructions.

4. **Exams:** There is one in-class mid-term exam worth 200 points and a comprehensive final worth 200 points. No make-up exams are given; however, if a student misses the first in-class exam with an appropriate University approved excuse (as mentioned above), the final will 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, a hand-held calculator, and Tables.

    Taking Online Excel Quizzes: To take a quiz in HLS, open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@10 pts. 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 (16*10 pts + 4*10 pts)   200
    Final Exam
                                                          <u>200</u>

                                           TOTAL:
                                      600

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

DEPARTMENT, COLLEGE, and OTHER POLICIES

1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
    a) A 2.70 grade point average
    b) Completion of 45 hours of the pre-business course work,
    c) Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
        Accounting 2020 and 2030 with grade "C" or better
        Economics 1100

    If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. J. Yasin (the Dean of the Division), but **only after discussing it with your instructor**.

3. As a general rule, the course format requires **no make-up exam** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.

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 Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:
    i. The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.
    ii. The student misses (providing no reason)/ or is caught cheating on an examination.

    If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as a tenable excuse:
    o Written and valid doctor's excuse for illness
    o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
    o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

    If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

If a student misses the final exam, he or she must provide the information defined above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the only circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used to substitute for poor performance in class.**

If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide substantial evidence to the contrary in a hearing held with the Director of Student Life, Laura Smith.

The Topics list is a tentative outline for the semester. It is meant to be a guide and several 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.

<u>**DSCI 3710 – Topics**</u>

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

Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook; however, you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook. Dates refer to when assignments are covered in class – due dates are listed in HLS

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
6/7			Course policies
	Hypothesis testing for population mean - large samples. **Exclude** authorization code **calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain**
	One-tailed test for µ with known sigma	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-value)**
6/9	Use of p-values	10.3	#10.28, 32
	Hypothesis tests for population mean - Unknown sigma, introduction to t-tables	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-value)** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two populations means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)** **Download Excel 1 Assignment**

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS

6/14   C.I. & hypothesis test for two populations means - small independent samples. **Exclude**   11.3   #11.25, 26 **HLS5: 10.3 HT 2 means**

$(\sigma -$

hand calculation for DF with unequal variance case   **unknown)**

Paired (dependent) small samples from two populations.   11.5   #11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep. n)**

Download Excel 2 Assignment

One-way analysis of variance. **Exclude calculations for test for equality of variance and hand calculation for Tukey test**   11.6   #11.57, 58, 60 **HLS 7: 12.1 ANOVA**

C.I. for population proportion: **large samples only**. Determination of sample size   12.1   #12.7, 8, 9

CASE 2: One-way ANOVA

CASE 1: Comparing population Means - **Excel Quiz 1** International   **(Multicultural /**

Finance)

6/16   Hypothesis test for population proportion: Large samples   12.1   **Excel Quiz 2 (Marketing / Management)**

HLS 8: 9.3 HT proportions (Z)

Hypothesis test for population proportion: 12.2   #12.17, 26, 27 **large samples only** continued

HLS 9: 9.2 HT prop. (p-value) * ***HLS 9: 9.2 not on the HLS Q 1**

Comparing two population props. - large   12.3   #12.31, 34, 37 independent samples.

HLS 10:10.1 HT 2 proportions ***HLS 10: 10.1 not on the**

HLS Q 1

Chi-Square test for independence/homogeneity **Exclude pooling of contingencies**   12.4   #12.49, 64

Chi-Square test: p-values using chi-square tables		#12.65

<div align="right">

HLS 11:
9.10 Chi-sq. test for
association

</div>

                                CASE 2: 1-Way ANOVA   **(Marketing / Management)**

6/21   **Test 1: Review**

         Test 1: chapters 10-12.   **Download Excel 3**
                                                         Assignment

6/ 23 Bi-variate data & correlation Covariance & Least Squares Line	13.1	#13.2, 3, 4, 5 #13.6, 7

<div align="right">

HLS12: 11.1
Scatter Plots & Corr

</div>

Simple linear regression, model assumptions, meaning of s^2	13.2	#13.18, 19

HLS13: 11.2 Fit linear model
CASE 3: Chi-Square test -
        Excel Quiz 3 (Marketing)

Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37 **HSL 14: 11.3 Regression**

<div align="right">

a
n
a
l
.
I

</div>

                    CASE 3: Chi-Square Test   **(Marketing)**

6/28 Estimation/Prediction	13.5		#13.45, 53
Residual analysis		13.6	#13.66
Multiple regression: **using Excel**	14.1		#14.1, 2, 6

<div align="right">

HSL 15: 11.4
Mult regression HSL 16:
11.5 ANOVA regression

</div>

	Global F- test vs individual t-tests	14.2	#14.13, 15, 17
	Multicollinearity	14.3	#14.31, 32, 33
6/30	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Further residual analysis	14.4	
	Multiple Regression Cases and Examples		**CASE 4: Multiple**

Regression -

Excel Quiz 4 (Real-

Estate)

| **7/5** | Catch-up and review | |
| | **CASE 4: Multiple Regression** | **(Real Estate)** |

7/7   FINAL
The Comprehensive Final Exam for DSCI3710 will be held at the time and day that class meets.

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules

Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts</u> .

No.	Due	Module	Due Dates are also listed in your HLS Progress Report
1	6/18	9.5	Hyp. test for µ (Z-value)
2	6/18	9.6	Hyp. test for mean (t-value) – Experiential in class exercise associated with lesson
3	6/18	9.4	Hyp. test for µ (p-value)
4	6/18	10.2	Comparing two means (sigma known)
5	6/18	10.3	Comparing two means (sigma unknown)
6	6/18	10.4	Comparing means (dependant)
7	6/18	12.1	ANOVA
8	6/18	9.3	Hyp. test for proportions (Z-value)
9	6/18	9.2	Hypothesis test for proportions (p-value)
10	6/18	10.1	Comparing 2 proportions (large independent samples)
11	6/18	9.10	Chi-sq. test for association
12	7/7	11.1	Scatter plots and Correlation
13	7/7	11.2	Fit linear model
14	7/7	11.3	Regression analysis I
15	7/7	11.4	Multiple Regression
16	7/7	11.5	ANOVA regression

Module registration is due by 11:59pm of due date as "logged-in" on the WEB registration system. After completing a module in a COBA lab, campus lab or done at home you should save the HLS certification code to your disk.

Late certifications are accepted, but at <u>20 </u>% penalty. If you certify but are unable to register, send an Email with your certification code and describing the problem to your instructor within 24 hours of the system error. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after 7/7/2011.

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: <u>4 x 10 pts. = 40 pts.</u>

No	Date	Topic
Excel CASE 1	**6/16**	**Comparing population Means (Multicultural and International Finance)**
Excel CASE 2	**6/20**	**1 way ANOVA (Marketing/ Management)**
Excel CASE 3	**6/27**	**Chi-Square test (Marketing)**
Excel CASE 4	**7/7**	**Multiple Regression (Real-Estate)**

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own analysis printout to answer the questions. Make-up quizzes are only given if arranged with your instructor. **Late Excel cases are hand-graded with a maximum of 50% credit, provided they are handed in on or before the next class period and after that next class they receive no credit.** The maximum of 5 points is obtainable providing the entire case analysis is complete and correct.

Student Getting Started Directions – see http://www.hawkeslearning.com/ for help

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**. Phone HLS at 843-571-2825 for help
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will   request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO DOWNLOAD and INSTALL THE HLS SOFTWARE AT HOME: use the update option instead if you have a version from a prior term
1. Go to the HLS site and select the Downloads Page from the list on the left
2. Select Business Statistics product from the drop down list.
3. Click on the Full Install download option.
4. When prompted, save the Installer program to your Desktop folder.
5. After the file is saved to your desktop, double click on it to begin the installation. Please follow the prompts.
6. When prompted for the Course ID enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."
7. If you prefer, HLS can send you new CDs. There is a $5.00 shipping and handling cost. These disks do NOT include a license number or Access Code you will have to purchase those separately. To purchase the CDs for installation purposes go to http://hawkespublishing.stores.yahoo.net/cdsonly.html

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.

DSCI 3710-090 Syllabus: Fall 2011

CLASS (DAY/TIME): T 7:00 pm – 9:50 pm in Room 348, Dallas Building #1
INSTRUCTOR: Daniel D. Friesen
OFFICE: Dal2 236   **PHONE:** 972.338.1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: T 4-7 p; W 10a - 4p; R 2-4 p; and by appointment.

1. **Textbook**
   Business Statistics: Courseware Edition, by Kvanli, Pavur, and Keeling. Published by Thomson Learning / Cengage Learning, ISBN : 978-1-111-40020-0.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2010 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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 Books:
   Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2. 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. 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. Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone ANYONE to obtain their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1. **Homework:** Homework is assigned and should be completed when due. 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. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through

COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

No credit is awarded for any tutorial exercise completed after the last class day 12/15/2011.

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 - formerly MSCI2710 or MSCI3710). See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final 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.

Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@ 10 pts. 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 (16*10 pts + 4*10pts)	200
Final Exam	<u>200</u>
	TOTAL: 600

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

6. The Dallas Campus has a statistics tutor on staff. Hours and location will be announced in class.

DIVISION and UNIVERSITY POLICIES

1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a) A 2.70 grade point average
   b) Completion of 45 hours of the pre-business course work,
   c) Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 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 are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. John Wong (Associate Dean of the Urban and Professional Studies Division).
3. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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 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.

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. Some grounds for unsatisfactory progress are as follows:
     i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.
     ii. The student misses (providing no reason) / or is caught cheating on an examination.
          If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:
          o   Written and valid doctor's excuse for illness,
          o   Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
          o   Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)
     If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.
          If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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.
          If a student is caught cheating, he or she 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 Life.
          The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

WEEK ASSIGNM'TS	TOPICS	SECTIONS	CW, HW &
August 29			Course policies
	Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain authorization code**
September 5	One-tailed test for μ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-value)**
	Use of p-values	10.3	#10.28, 32
	Note: Labor Day Holiday 9/5		
September 12 54	Hypothesis tests for population mean -	10.4	#10.37, 38, 40, 41, 43, 53,
	small n, introduction to t-tables **value)**		**HLS2: 9.6 HT mean (t-** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
September 19	C.I. & hypothesis test for two populations means - small independent samples. **Exclude** (σ – **hand calculations with unequal variance case**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means** unknown) **Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep)**
September 26	F-test for two variances **right tailed tests- concept only**	11.4	#11.37, 38 **Download Excel 2 Assignment**

One-way analysis of variance. **Exclude test for equality of variance and Tukey test**   11.6   #11.57, 58, 60
HLS 7: 12.1 ANOVA

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
October 3	C.I. for population proportion: **large samples only**. Determination of sample size	12.1	#12.7, 8, 9
			CASE 2: One-way ANOVA
	Hypothesis test for population proportion:	12.2	#12.17, 26, 27 **large samples only**.
			HLS 8: 9.3 HT proportions (Z) **HLS 9: 9.2 HT prop. (p-value)***
October 10	Comparing two population props. - large	12.3	#12.31, 34, 37 independent samples.
			HLS 10:10.1 HT 2 proportions
	Catch up and Review		
October 17 Assignment	Catch up and Review		**Download Excel 3**
	******* EXAM 1 (chapters 10-12)******		
October 24	Chi-Square test for independence/homogeneity **Exclude pooling of contingencies**	12.4	#12.49, 64
	Chi-Square test: p-values using chi-square tables		#12.65
			HLS 11: 9.10 Chi-sq. test for association
October 31			
	Bi-variate data & correlation Covariance & Least Squares Line	13.1	#13.2, 3, 4, 5 #13.6, 7
			HLS12: 11.1 Scatter Plots & Corr
			Simple linear regression, model assumptions, 13.2 #13.18, 19
meaning of s^2			**HLS13: 11.2 Fit linear model**
			CASE 3: Chi-Square test -

Oct 28 (before 5 PM)   ****** LAST DAY TO DROP *********
Last day to drop with consent of the instructor for W / WF**

WEEK ASSIGNMENTS	TOPICS	SECTIONS	CW, HW &
November 7	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37
	Estimation/Prediction	13.5	#13.45, 53
	Residual analysis	13.6	#13.66 **HSL 14: 11.3 Regression**

a
n
a
l
.

I

WEEK ASSIGNMENTS	TOPICS	SECTIONS	CW, HW &
November 14	Multiple regression:	14.1	#14.1, 2, 6 **HSL 15: 11.4 Mult regression HSL 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
November 21	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
	Nov 24 – 27 Thanksgiving Holiday		
November 28 **Regression -** **Estate)**	Multiple Regression Cases and Examples Catch-up and review		**CASE 4: Multiple** **Excel Quiz 4 (Real-**
December 5	Catch-up and review		
December 12	**FINALS WEEK** **The Comprehensive Final Exam for DSCI3710-090 will be held on** <mark>**Tuesday**</mark>**,** <mark>**December 13**</mark>**,** <mark>**from 7:30 pm to 9:30 pm,**</mark> **in Room 348.**		

Certification due dates for the HLS: Business Statistics (HLS) Modules
Registrations due by 11:59 p.m. on the due date/s shown below: 16 x 10 pts. = 160 points

No.	Module	
1	9.5	Hyp. test for μ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for μ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (depend n)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)

These modules are due by 10/21/2011.

9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association
12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

These modules are due by 12/15/2011.

Module certification is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a campus lab or done at home you should save the HLS certification code to your disk.

Late certifications are accepted, but at 20% penalty. If you certify but are unable to register, come see me. Any issue related to tardy/ late submission of modules are to be taken care of within one week of their respective due dates. Please understand that such late certifications may result in your losing full score on the HLS Quizzes. No late modules are taken after 12/15 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 10 pts. = 40 pts.

No	Topic	Quiz Dates
Excel CASE 1	Comparing population Means (Finance)	9/27-10/02
Excel CASE 2	1 way ANOVA (Marketing/ Management)	10/04-10/09
Excel CASE 3	Chi-Square test (Marketing)	10/31-11/06
Excel CASE 4	Multiple Regression (Real-Estate)	11/28-12/4

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:

1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

DSCI 3710d-090 Syllabus: Spring 2012

CLASS (DAY/TIME): TR 2:30 – 3:50 pm in Room 337, Dallas Building #2 (Founders' Hall)
INSTRUCTOR: Daniel D. Friesen, Ph.D.
OFFICE: Dal2 236
PHONE: 972.338.1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TR noon—2 pm; W 10a—4 pm; T 2—4 pm; and by appointment.

1. **Textbook**
   Business Statistics: Courseware Edition, by Kvanli, Pavur, and Keeling. Published by Thomson Learning / Cengage Learning, ISBN : 978-1-111-40020-0.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2011 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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 Books:
   <u>Any Excel Primer</u> - Most of you had an Excel reference in BCIS 2610 that will suffice.

GOALS: At the end of the course, students will
1. have an increased appreciation for the use of statistics in business decision making,
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. gain an enhanced ability to use quantitative methods for business decision making.

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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. Students are encouraged to keep up with the homework and meet the submission deadlines.

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

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

DSCI 3710 COURSE- SPECIFIC POLICIES:
1. **Homework:** Homework is assigned and should be completed when due. 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. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTDBSTAT/, also accessible through the COBA link:

http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

No credit is awarded for any tutorial exercise completed after 5/9/2012.

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 - formerly MSCI2710 or MSCI3710). See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final 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.

    Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@ 10 pts. 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 (16*10 pts + 4*10pts)	200
Final Exam	
	200
TOTAL:	
600	

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

6.   The UNT Dallas subscribes to an on-line tutorial service named "Smarthinking." Student Services publishes and provides information about accessing this resource. There is NO additional cost associated with using this resource.

DIVISION and UNIVERSITY POLICIES

1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a)   A 2.70 grade point average
   b)   Completion of 45 hours of the pre-business course work,
   c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 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 are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. John Wong (Associate Dean of the Urban and Professional Studies Division).
3.   The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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 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.

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. Some grounds for unsatisfactory progress are as follows:

    i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

    ii. The student misses (providing no reason) / or is caught cheating on an examination.

    If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

    o Written and valid doctor's excuse for illness,
    o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
    o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

    If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

    If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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.

    If a student is caught cheating, he or she 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 Life.

    The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.

DSCI 3710 – Topics

HLS – **HLS: Business Statistics tutorials (**In the listing below HT stands for Hypothesis Testing.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

WEEK ASSIGNM'TS	TOPICS	SECTIONS	CW, HW &
January 16			Course policies
	Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain authorization code**
January 23 **value)**	One-tailed test for μ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-**
	Use of p-values	10.3	#10.28, 32
January 30 54	Hypothesis tests for population mean - small n, introduction to t-tables **value)**	10.4	#10.37, 38, 40, 41, 43, 53, **HLS2: 9.6 HT mean (t-** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
February 6	C.I. & hypothesis test for two means - small independent samples. **Exclude hand calculations with unequal variances**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means (σ – unknown)** **Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep)**
February 13	F-test for two variances **right tailed tests- concept only**	11.4	#11.37, 38 **Download Excel 2 Assignment** **CASE 1: Comparing population**

Means - Excel Quiz 1 (Finance)

One-way analysis of variance. **Exclude**   11.6   #11.57, 58, 60
test for equality of variances and Tukey test   **HLS 7: 12.1 ANOVA**

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
February 20	C.I. for population proportion: **large samples only**. Determination of sample size	12.1	#12.7, 8, 9
			CASE 2: One-way ANOVA
	Hypothesis test for population proportion:	12.2	#12.17, 26, 27 **large samples only**.
			HLS 8: 9.3 HT proportions (Z) **HLS 9: 9.2 HT prop. (p-value)***
February 27	Comparing two population proportions - large	12.3	#12.31, 34, 37 independent samples.
			HLS 10:10.1 HT 2 proportions
March 5 Assignment	Catch up and Review		**Download Excel 3**
	******* EXAM 1 (chapters 10-12)******		
March 12	Chi-Square test for independence/homogeneity **Exclude pooling of contingencies**	12.4	#12.49, 64
	Chi-Square test: p-values using chi-square tables		#12.65
			HLS 11: 9.10 Chi-sq. test for association
March 19	**Spring Break—Class Does NOT Meet**		
March 26	Bi-variate data & correlation Covariance & Least Squares Line	13.1	#13.2, 3, 4, 5 #13.6, 7
			HLS12: 11.1 Scatter Plots & Corr
			Simple linear regression, model assumptions, 13.2 #13.18, 19
	meaning of s^2		**HLS13: 11.2 Fit linear model**
			CASE 3: Chi-Square test -

April 2	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37
	Estimation/Prediction	13.5	#13.45, 53
	Residual analysis	13.6	#13.66

HSL 14: 11.3 Regression anal. I

WEEK ASSIGNMENTS	TOPICS	SECTIONS	CW, HW &
April 9	Multiple regression:	14.1	#14.1, 2, 6 **HSL 15: 11.4 Mult regression HSL 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
April 16	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
April 23 **Regression -** **Estate)**	Multiple Regression Cases and Examples Catch-up and review		**CASE 4: Multiple** **Excel Quiz 4 (Real-**
April 30	Catch-up and review		
May 7	**FINALS WEEK** **The Comprehensive Final Exam for DSCI3710-090 will be held on** <mark>**Tuesday**</mark>**,** <mark>**May 8,**</mark> <mark>**from 2:00 pm to 4:00 pm,**</mark> **in Building 2 (Founders' Hall) Room 337.**		

Certification due dates for the HLS: Business Statistics (HLS) Modules
Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 10 pts. = 160 points</u>

<u>No.</u>	<u>Module</u>	
1	9.5	Hyp. test for μ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for μ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (depend n)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)

These modules are due by 3/8/12 .

9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association
12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

These modules are due by 5/9/12 midnight (Wednesday).

Module certification is due by (11:59pm) of due date as "logged-in" on the WEB registration system. After completing a module in a campus lab or done at home you should save the HLS certification code to your disk.
If you certify but are unable to register, come see me. No modules are accepted after 5/9/12 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: <u>4 x 10 pts. = 40 pts.</u>

<u>No</u>	<u>Topic</u>	<u>Quiz Dates</u>
Excel CASE 1	Comparing population Means (Finance)	2/23/2012
Excel CASE 2	1 way ANOVA (Marketing/ Management)	3/1/2012
Excel CASE 3	Chi-Square test (Marketing)	4/5/2012
Excel CASE 4	Multiple Regression (Real-Estate)	5/3/2012

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help

University of North Texas at Dallas
Spring 2012
SYLLABUS

DSCI 3710D-090: Business Statistical Analysis using Spreadsheets   3 Hrs

Department of		Business	Division of	Urban and Professional Studies

Instructor Name:	*Daniel D. Friesen*
Office Location:	*Founders Hall 236*
Office Phone:	*972.338.1805*
Email Address:	*dfriesen@unt.edu*

Office Hours:	**TR noon - 2 pm; W 10 am – 4 pm; T 4-6 pm**
Virtual Office Hours:	*Not applicable*

Classroom Location:	*Building 1 Room 348*
Class Meeting Days & Times:	**TR 2:30 pm - 3:50 pm**

Course Catalog Description:	Statistical inference for means and proportions, analysis of variance, correlation, simple and multiple regression. Extensive use of cases and spreadsheets.

Prerequisites:	**None**
Co-requisites:	**None**

Required Text:	1. <u>Business Statistics</u>, (**Courseware Edition**), Kvanli / Pavur / Keeling 2. <u>Adventures in Statistics</u>, by James S. Hawkes of Hawkes Learning.

Recommended Text and References:	**Any Excel primer**

Access to Learning Resources:	UNT Dallas Library:
	    phone: (972) 780-3625;
	    web: http://www.unt.edu/unt-dallas/library.htm
	UNT Dallas Bookstore:
	    phone: (972) 780-3652;
	    e-mail: 1012mgr@fheg.follett.com

Course Goals or Overview:

The goal of this course is to learn how to use common business statistical techniques to aid in decision making.

Learning Objectives/Outcomes: At the end of this course, the student will

1	have an increased appreciation for the use of statistics in business decision making,
2	acquire a positive attitude toward business statistics and how it is relevant for your future coursework,
3	be better able to communicate in the language of applied business statistics,
4	be better able to select the appropriate statistical tool/methodology to aid in business decision making for your future course work and future job,
5	be able to use appropriate statistical formulae to solve problems,
6	be more capable of using a computer to describe and analyze numerical data,
7	Have an enhanced ability to use quantitative methods for business decision making.

Course Outline
This schedule is subject to change by the instructor. Any changes to this schedule will be communicated by email, Hawkes, and in-class discussion.

TOPICS	TIMELINE
Course and Instructor Policies Review of necessary concepts from DSCI 2710 Hypothesis testing for a population mean	Week 1
One-tailed test for μ with large n Use of p-values	Week 2
Hypothesis tests for population mean - small n, introduction to t-tables C.I. & hypothesis test for two populations means - large independent samples.	Week 3
C.I. & hypothesis test for two populations means - small independent samples. Paired (dependent) small samples from two populations.	Week 4
F-test for two variances One-way analysis of variance. **CASE 1: Comparing population Means - Excel Quiz 1 (Finance)**	Week 5
C.I. for population proportion: large samples only. Determination of sample size **CASE 2: One-way ANOVA Excel Quiz 2 (Marketing / Management)** Hypothesis test for population proportion.	Week 6
Comparing two population props. - large Catch up and Review **Quiz 1 on HLS modules 9.3, 9.4, 9.5, 9.6, 10.2, 10.3, 10.4, and 12.1 for 50 points**	Week 7
Catch up and Review ********* EXAM 1 *********	Week 8
Chi-Square test for independence/homogeneity Chi-Square test: p-values using chi-square tables	Week 9
Bi-variate data & correlation Covariance & Least Squares Line Meaning of s^2 **CASE 3: Chi-Square test - Excel Quiz 3 (Marketing)**	Week 10
Simple linear regression: hypothesis test and C.I. for slope Coefficient of determination, danger of assuming causality. Estimation/Prediction Residual analysis	Week 11
Multiple regression: Global F- test vs individual t-tests Multicollinearity	Week 12
Dummy variables. Multiple regression **using Excel** Step-wise Procedures, further residual analysis, Multiple Regression Cases and Examples **CASE 4: Multiple Regression - Excel Quiz 4 (Real-Estate)**	Week 13
Multiple Regression Cases and Examples Catch-up and review **Quiz 2 on HLS modules 9.2, 9.10, 10.1, 11.1, 11.2, 11.3, 11.4 and 11.5 for 50 points**	Week 14
Catch-up and review	Week 15
Finals Week: Comprehensive Final Exam	Week 16

Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Exams – There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final worth 200 points. If a student misses the first in-class exam (with an appropriate University approved excuse, as mentioned above) the final may 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.

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. **Late Excel Cases are typically not accepted.**

HLS Tutorial Exercises (module certifications): Tutorial exercises using the **Hawkes Learning Systems (HLS): Business Statistics** are assigned. The due dates for the tutorials using **HLS** software are assigned in the detailed syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit.

Grading Matrix:

Instrument	Value (points or percentages)	Total
Mid-term Exam	200 points	200
HLS Tutorials	16 at 10 points each	160
Excel Quizzes	4 at 10 points each	40
Final Exam	200 points	200
Total:		**600**

Grade Determination

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

University Policies and Procedures

Students with Disabilities (ADA Compliance):
The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2 or call Laura Smith at 972-780-3632.

Student Evaluation of Teaching Effectiveness Policy:
The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you with a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Assignment Policy:
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.

Exam Policy:
The instructor may allow a make-up exam, or 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.

Academic Integrity:
Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity at http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic_Integrity.pdf for complete provisions of this code.
In addition, all academic work submitted for this class, including exams, papers, and written assignments should include the following statement:

> **On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.**

Bad Weather Policy:
On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website www.unt.edu/dallas. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

Attendance and Participation Policy:
Attendance is not counted in the grading policy; neither is participation. Student success is directly related to attendance and participation. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent.

Diversity/Tolerance Policy:
Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Office of Student Life as the instructor deems appropriate.

Policies:
- *Use of electronic devices that create distractions to the students or instructor is not tolerated.*
- *Use of Laptops is permitted and encouraged it you find them helpful. They will not be available for testing.*
- *See the Student Handbook for a comprehensive discussion of Incompletes. The grade of Incomplete, "I", is seldom given and cannot be used to compensate for poor performance in this course.*

CLASS day & time: TR 6:00 – 9:50 pm, Founders (Dallas Building 2) room 101
INSTRUCTOR: Daniel Friesen, Ph.D.
OFFICE: Dal 2, room 236   **PHONE:** 972-338-1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: TR 2-5 pm; MW noon – 4 pm.

REQUIRED BOOKS & SOFTWARE:

1. Use your textbook from DSCI 2710 - **UNT Business Statistics: DSCI 2710/3710**, Cengage Learning.
2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS), *FALL 2011 Version or newer.* 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 the HLS software for DSCI 2710 or DSCI 3710, you do NOT need to purchase new HLS software. You can use the same access code and update the software via the update option within your software.** Individual copies of the software are required to obtain the module certifications, and to take the online WEBTEST quizzes. See the **Student Getting Started Directions** page at the end of this syllabus.
3. **Optional Book:** Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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

TEACHING METHOD:
1. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 invited 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 the 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 a verbal narrative format. The exams and assigned work reinforce the course objectives by simulating real business problems that require students to communicate.

CAMPUS CLOSING POLICY: In the event of an official campus closing, please check your UNT e-mail account (EagleConnect) or the HLS notice system for instructions about how to turn in various assignments, how the due dates are modified, etc.

GENERAL COMMENTS
1.   Doing the assignments is essential for success in this course. In fact, the assignments constitute a significant portion of your grade in this course. Students are encouraged to keep up with the homework and meet the submission deadlines.

2.   Do 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.   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 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. Such an excuse is to be provided to the instructor in writing, as early as possible.

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

5.   Students are requested _**not**_ to phone the ITDS department—or anyone else—for their final grade in the course. Final grades are available only electronically, via MyUNT and via Hawkes.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework is assigned and should be completed when due. While only the HLS modules (tutorials), WEBTESTS 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.
3.   **Tutorial Exercises:** Tutorial exercises using the **Hawkes Learning Systems: Business Statistics (HLS)** are assigned. These form a significant part of the course grade and **must be registered in the HLS Web database** to receive full credit. On completion of a module, 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTDBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive

clicks through COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >).

No credit is awarded for any exercise completed after 7/7 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***](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***](mailto:codes@hawkeslearning.com)***. It would be best to send your name as originally used, 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).*** See the attached sheet for a full set of HLS instructions.

4.   **Exams:** There is one in-class mid-term exam worth 200 points and a comprehensive final worth 200 points. No make-up exams are given; however, if a student misses the first in-class exam with an appropriate University approved excuse (as mentioned above), the final will 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, a hand-held calculator, and Tables.

Taking Online Excel Quizzes: To take a quiz in HLS, open the software as usual and select Web Test at the bottom of the page. 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 as posted in the progress report 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/Exam, you will receive either a -0- or partial credit for what portion you did complete. Therefore get everything you need BEFORE opening the Quiz.

5.   **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@10 pts. 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 (16*10 pts + 4*10 pts)   200
        Final Exam (comprehensive)
                                                                        200

                                                                TOTAL:
                                                        600

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

DEPARTMENT, COLLEGE, and OTHER POLICIES

1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a) A 2.70 grade point average
   b) Completion of 45 hours of the pre-business course work,
   c) Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 with a grade of C or better. **DSCI 2710** required **MATH 1100 and 1190** as well **BCIS 2610**. In addition, students are required to have completed:
       Accounting 2020 and 2030 with grade "C" or better
       Economics 1100

   If you are a business major (including business undecided or pre-accounting majors) enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.

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. J. Wong, but **only after discussing it with me**.

3. As a general rule, the course format requires **no make-up exam** be given. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.

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 Student Guidebook. You are responsible for familiarizing yourself with such information published by the University.

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.

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. Some grounds for unsatisfactory progress are as follows:
   i. The student has more than 3 un-excused assignment returns (such as Excel or HLS, on their final due dates) / absences.
   ii. The student misses (providing no reason)/ or is caught cheating on an examination.

   If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as a tenable excuse:
   o Written and valid doctor's excuse for illness
   o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.)
   o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

   If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

If a student misses the final exam, he or she must provide the information defined above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. **This is the <u>only</u> circumstance in which an "I" grade will be awarded. If you think you will not be able to complete the class satisfactorily, please drop the course. An "I" grade cannot be used to substitute for poor performance in class.**

If a student is caught cheating, he or she will be immediately removed from the class with a "WF" grade. To be reinstated, the student must provide <u>substantial</u> evidence to the contrary in a hearing held with the Director of Student Life, Laura Smith.

The Topics list is a tentative outline for the semester. It is meant to be a guide and several 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.

<u>**DSCI 3710 – Topics**</u>

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

Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook; however, you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook. Dates refer to when assignments are covered in class – due dates are listed in HLS

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
6/5 (T)			Course policies
	Hypothesis testing for population mean - large samples. **Exclude** authorization code **calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain**
value)	One-tailed test for μ with known sigma	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-**
6/7 (R)	Use of p-values	10.3	#10.28, 32
	Hypothesis tests for population mean - Unknown sigma, introduction to t-tables value)	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-** **HLS3: 9.4 HT means (p-value)**
Assignment	C.I. & hypothesis test for two populations means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)** **Download Excel 1**

DATE	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS

6/12 (T)

C.I. & hypothesis test for two populations means - small independent samples. **Exclude** **$(\sigma -$ hand calculation for DF with unequal variance case** — 11.3 — #11.25, 26 **HLS5: 10.3 HT 2 means** **unknown)**

Paired (dependent) small samples from two populations. — 11.5 — #11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep. n)**

Download Excel 2 Assignment

One-way analysis of variance. **Exclude calculations for test for equality of variance and hand calculation for Tukey test** — 11.6 — #11.57, 58, 60 **HLS 7: 12.1 ANOVA**

C.I. for population proportion: **large samples only**. Determination of sample size — 12.1 — #12.7, 8, 9

CASE 2: One-way ANOVA

CASE 1: Comparing population Means - Excel Quiz 1 International

(Multicultural / Finance)

6/14 (R)

Hypothesis test for population proportion: Large samples — 12.1 — **Excel Quiz 2 (Marketing / Management)**

HLS 8: 9.3 HT proportions (Z)

Hypothesis test for population proportion: — 12.2 — #12.17, 26, 27 **large samples only** continued

HLS 9: 9.2 HT prop. (p-value) * ***HLS 9: 9.2 not on the HLS Q 1**

Comparing two population props. - large — 12.3 — #12.31, 34, 37 independent samples.

HLS 10:10.1 HT 2 proportions ***HLS 10: 10.1 not on the HLS Q 1**

Chi-Square test for independence/homogeneity **Exclude pooling of contingencies** — 12.4 — #12.49, 64

Chi-Square test: p-values using
chi-square tables

#12.65

HLS 11:
9.10 Chi-sq. test for
association

CASE 2: 1-Way ANOVA   **(Marketing / Management)**

6/19 (T)   **Test 1: Review**

Test 1: chapters 10-12.   **Download Excel 3**
Assignment

6/ 21 (R)   Bi-variate data & correlation   13.1   #13.2, 3, 4, 5
Covariance & Least Squares Line   #13.6, 7

HLS12: 11.1
Scatter Plots & Corr

Simple linear regression, model assumptions,   13.2   #13.18, 19
meaning of s^2 **HLS13: 11.2 Fit linear model**
CASE 3: Chi-Square test -
Excel Quiz 3 (Marketing)

Simple linear regression: hypothesis test and   13.3   #13.23, 24, 25
C.I. for slope

Coefficient of determination, danger of   13.4   #13.33, 37
assuming causality. **Exclude t-test for rho**   **HSL 14: 11.3 Regression anal. I**

CASE 3: Chi-Square Test   **(Marketing)**

6/26 (T)   Estimation/Prediction   13.5   #13.45, 53
            Residual analysis   13.6   #13.66

Multiple regression: 14.1   #14.1, 2, 6
using Excel

HSL 15: 11.4
Mult regression HSL 16:
11.5 ANOVA regression

Global F- test vs individual t-tests   14.2   #14.13, 15, 17

Multicollinearity   14.3   #14.31, 32, 33

6/28 (R)   Dummy variables.   14.4   #14.39, 42, 49
Multiple regression **using Excel**

Further residual analysis   14.4

Multiple Regression Cases and Examples   **CASE 4: Multiple**
Regression -

Excel Quiz 4 (Real-
Estate)

7/3 (T)   Catch-up and review

        CASE 4: Multiple Regression   **(Real Estate)**

7/5 (R)   **FINAL**

The Comprehensive Final Exam for DSCI3710 will be held at the time and day that class meets.

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules
        Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 5 pts. = 80 pts .</u>
        <u>**No.**</u>   <u>**Due**</u>   <u>**Module**</u>   <u>**Due Dates are also listed in your HLS Progress Report**</u>
        1   6/19   9.5   Hyp. test for μ (Z-value)
        2   6/19   9.6   Hyp. test for mean (t-value) – Experiential in class exercise associated with lesson

        3   6/19   9.4   Hyp. test for μ (p-value)
        4   6/19   10.2   Comparing two means (sigma known)
        5   6/19   10.3   Comparing two means (sigma unknown)
        6   6/19   10.4   Comparing means (dependant)

        7   6/19   12.1   ANOVA

        8   6/19   9.3   Hyp. test for proportions (Z-value)
        9   6/19   9.2   Hypothesis test for proportions (p-value)
        10   6/19   10.1   Comparing 2 proportions (large independent samples)
        11   6/19   9.10   Chi-sq. test for association
        12   7/5   11.1   Scatter plots and Correlation

        13   7/5   11.2   Fit linear model
        14   7/5   11.3   Regression analysis I

        15   7/5   11.4   Multiple Regression

        16   7/5   11.5   ANOVA regression

        After completing a module in a campus lab or done at home you should save the HLS certification code to your disk. No late modules are taken after 7/5/2012.

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.
        <u>**No**</u>   <u>**Date**</u>   <u>**Topic**</u>
        Excel CASE 1   **7/5**   **Comparing population Means (Multicultural and International Finance)**

        Excel CASE 2   **7/5**   **1 way ANOVA (Marketing/ Management)**
        Excel CASE 3   **7/5**   **Chi-Square test (Marketing)**
        Excel CASE 4   **7/5**   **Multiple Regression (Real-Estate)**

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]
Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (5 points) and students need to use their own analysis printout to answer the questions. Make-up quizzes are only given if arranged with your instructor.

Student Getting Started Directions – see http://www.hawkeslearning.com/ for help

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

1. Go to www.hawkeslearning.com and click on **get your access code**. Phone HLS at 843-571-2825 for help
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO DOWNLOAD and INSTALL THE HLS SOFTWARE AT HOME: use the update option instead if you have a version from a prior term

1. Go to the HLS site and select the Downloads Page from the list on the left
2. Select Business Statistics product from the drop down list.
3. Click on the Full Install download option.
4. When prompted, save the Installer program to your Desktop folder.
5. After the file is saved to your desktop, double click on it to begin the installation. Please follow the prompts.
6. When prompted for the Course ID enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."
7. If you prefer, HLS can send you new CDs. There is a $5.00 shipping and handling cost. These disks do NOT include a license number or Access Code you will have to purchase those separately. To purchase the CDs for installation purposes go to http://hawkespublishing.stores.yahoo.net/cdsonly.html

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.

DSCI 3710-090 Syllabus: Fall 2012

CLASS (DAY/TIME): T 7:00 pm – 9:50 pm in Room 101, Dallas Building #2
INSTRUCTOR: Daniel D. Friesen
OFFICE: Dal2 236   **PHONE:** 972.338.1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: M: noon-4 p, W: 1 – 5 p; R: 1-4 p; And by appt.

1. **Textbook**
   Business Statistics: Courseware Edition, by Kvanli, Pavur, and Keeling. Published by Thomson Learning / Cengage Learning, ISBN : 9780495984948.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes Learning Systems* (HLS)*, FALL 2012 Version*. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. **If you 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 Books:
   Any Excel Primer - Most of you had an Excel reference in BCIS 2610 that will suffice.

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. Students are encouraged to pay attention to commercials and news items to become aware of the wide use of statistics in our daily lives. 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 the 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. Students are encouraged to keep up with the homework and meet the submission deadlines.

2. 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. 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. Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone ANYONE to obtain their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1. **Homework:** Homework is assigned and should be completed when due. 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. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at http://www.hawkeslearning.com/UNTDBSTAT/, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through

COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

No credit is awarded for any tutorial exercise completed after the last class day 12/15/2011.

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 - formerly MSCI2710 or MSCI3710). See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4.   **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final 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).

Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5.   **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@ 10 pts. 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 (16*10 pts + 4*10pts)	200
Final Exam	200
TOTAL:	600

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

6.   The Dallas Campus has a statistics tutor on staff. Hours and location will be announced in class.

DIVISION and UNIVERSITY POLICIES
1.   To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a)   A 2.70 grade point average
   b)   Completion of 45 hours of the pre-business course work,
   c)   Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 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 are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. John Wong (Associate Dean of the Urban and Professional Studies Division).
3.   The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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 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.

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. Some grounds for unsatisfactory progress are as follows:

i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

ii. The student misses (providing no reason) / or is caught cheating on an examination.

If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

o   Written and valid doctor's excuse for illness,
o   Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
o   Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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.

If a student is caught cheating, he or she 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 Life.

The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.

<u>**DSCI 3710 – Topics**</u>

HLS – **HLS: Business Statistics tutorials (**In the listing below HT stands for Hypothesis Testing.) Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

<u>WEEK ASSIGNM'TS</u>	<u>TOPICS</u>	<u>SECTIONS</u>	<u>CW, HW &</u>
August 27			**No Class**
September 3			Course policies
	Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain authorization code**
September 10	One-tailed test for μ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-value)**
	Use of p-values	10.3	#10.28, 32
September 17	Hypothesis tests for population mean - small n, introduction to t-tables **value)**	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
September 24	C.I. & hypothesis test for two populations means - small independent samples. **Exclude** **(σ –** **hand calculations with unequal variance case**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means** **unknown)** **Download Excel 1 Assignment**
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep)**
October 01	F-test for two variances **right tailed tests- concept only**	11.4	#11.37, 38 **Download Excel 2**

Assignment

**CASE 1: Comparing population
Means - Excel Quiz 1 (Finance)**

One-way analysis of variance. **Exclude**   11.6   #11.57, 58, 60
test for equality of variance and Tukey test   **HLS 7: 12.1 ANOVA**

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
October 08	C.I. for population proportion: **large samples only**. Determination of sample size	12.1	#12.7, 8, 9
			CASE 2: One-way ANOVA
	Hypothesis test for population proportion:	12.2	#12.17, 26, 27 **large samples only**.
			HLS 8: 9.3 HT proportions (Z) **HLS 9: 9.2 HT prop. (p-value)***
October 15	Comparing two population props. - large	12.3	#12.31, 34, 37 independent samples.
			HLS 10:10.1 HT 2 proportions
	Catch up and Review		
October 22 Assignment	Catch up and Review		**Download Excel 3**
	******* EXAM 1 (chapters 10-12)******		
October 29	Chi-Square test for independence/homogeneity **Exclude pooling of contingencies**	12.4	#12.49, 64
	Chi-Square test: p-values using chi-square tables		#12.65
			HLS 11: 9.10 Chi-sq. test for association
November 05			
	Bi-variate data & correlation Covariance & Least Squares Line	13.1	#13.2, 3, 4, 5 #13.6, 7
			HLS12: 11.1 Scatter Plots & Corr
			Simple linear regression, model assumptions, 13.2 #13.18, 19
meaning of s^2			**HLS13: 11.2 Fit linear model**
			CASE 3: Chi-Square test -

November 7 (before 5 PM)
Last day to drop with consent of the instructor for W / WF

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
November 12	Simple linear regression: hypothesis test and C.I. for slope	13.3	#13.23, 24, 25
	Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37
	Estimation/Prediction	13.5	#13.45, 53
	Residual analysis	13.6	#13.66 **HSL 14: 11.3 Regression anal. I**
November 19	Multiple regression:	14.1	#14.1, 2, 6 **HSL 15: 11.4 Mult regression HSL 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
	Nov 22 – 25 **Thanksgiving Holiday**		
November 26	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
December 3 **Regression -** **Estate)**	Multiple Regression Cases and Examples Catch-up and review		**CASE 4: Multiple** **Excel Quiz 4 (Real-**
December 10	**FINALS WEEK** **The Comprehensive Final Exam for DSCI3710-090 will be held on Tuesday, December 11, from 7:30 pm to 9:30 pm, in Room 101, Dal 2.**		

Certification due dates for the HLS: Business Statistics (HLS) Modules
Registrations due by 11:59 p.m. on the due date/s shown below: <u>16 x 10 pts. = 160 points</u>

<u>No.</u>	<u>Module</u>	
1	9.5	Hyp. test for μ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for μ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (dependent)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)
9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association

These modules are ideally completed by 10/19/2012.

12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

These modules are ideally completed by 12/11/2012.

If you certify but are unable to register a certification, come see me. No modules are accepted after 12/13 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: <u>4 x 10 pts. = 40 pts.</u>

<u>No</u>	<u>Topic</u>	<u>Quiz Dates</u>
Excel CASE 1	Comparing population Means (Finance)	10/03-10/07
Excel CASE 2	1 way ANOVA (Marketing/ Management)	10/10-10/14
Excel CASE 3	Chi-Square test (Marketing)	11/07-11/11
Excel CASE 4	Multiple Regression (Real-Estate)	12/04-12/09

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:

1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:

1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:

1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help.

DSCI 3710-090 Syllabus: Spring 2013

CLASS (DAY/TIME): R 1:00 pm – 3:50 pm in Room 101, Founders Hall (Dal #2)
INSTRUCTOR: Daniel D. Friesen
OFFICE: Dal2 236   **PHONE:** 972.338.1805
E-MAIL: dfriesen@unt.edu
OFFICE HRS: M: 1 - 4 p, T: 11 a – 4 p, R: 7 - 8 p; And by appt.

1. **Textbook**
   Business Statistics: Courseware Edition, by Kvanli, Pavur, and Keeling. Published
   by Thomson Learning / Cengage Learning, ISBN : 9780495984948.

2. **Hawkes Learning Systems: Business Statistics**, by James S. Hawkes, *Hawkes
   Learning Systems* (HLS)*, FALL 2012 Version*. Note: This software is **required** to
   complete the assignments that are equivalent to a portion of one take home exam. **If you
   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 Books:
   <u>Any Excel Primer</u> - Most of you had an Excel reference in BCIS 2610 that will suffice.

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. Students are encouraged to pay attention to commercials and news items to become aware of
   the wide use of statistics in our daily lives. 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 the 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.   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.   Students have the final responsibility for seeing that they properly withdraw before the scheduled last drop day, in case they wish to withdraw from/ drop the course. 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 phone ANYONE to obtain their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:
1.   **Homework:** Homework is assigned and should be completed when due. 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. The due dates for the tutorials using **HLS** software are assigned in this syllabus. These form a significant part of the course grade and **must be registered onto the HLS Web database by the due date** to receive full credit. 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, exit HLS and then go to your course HLS Web site at

, also accessible through the COBA link: http://www.coba.unt.edu/itds/courses/dsci3710/dsci3710.htm (successive clicks through COBA Web site > Departments > ITDS > Course Descriptions > Go to DSCI3710 and select Course Website >)

No credit is awarded for any tutorial exercise completed after the last class day 12/15/2011.

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 - formerly MSCI2710 or MSCI3710). See the attached sheet for a full set of HLS instructions. You can also download (save) a copy from our web site by going to: http://www.hawkeslearning.com/PC_manuals.htm In addition, there is a more detailed or full set of student directions that walk through the product completely on that page.

4. **Exams:** There is 1 in-class mid-term exam worth 200 points and 1 comprehensive final 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).

    Taking Online Excel and HLS Quizzes: To take a quiz in HLS, open the software as usual and select "WebTest" at the bottom of the page. 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 get everything you need BEFORE opening the Quiz.

5. **Grading:** The 16 HLS modules are worth a total of 160 points (@ 10 points each); The 4 online Excel case quizzes are worth a total of 40 points (@ 10 pts. 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 (16*10 pts + 4*10pts)	200
Final Exam	
	<u>200</u>
TOTAL:	
	600

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

DIVISION and UNIVERSITY POLICIES
1. To be eligible for enrollment in upper-level business courses, students must have satisfied **all** of the following requirements:
   a) A 2.70 grade point average
   b) Completion of 45 hours of the pre-business course work,
   c) Completion of **DSCI 2710** or equivalent such as **MSCI 2710** or MSCI 3700 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 are a business major (including business undecided or pre-accounting majors) who is enrolled in upper-level business courses and do not meet these requirements, please drop the upper-level courses immediately in order to receive a refund of your tuition. If you choose not to drop, the Dean's office will administratively cancel your enrollment in those courses. In that event, you will **not** receive a tuition refund.
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. John Wong (Associate Dean of the Urban and Professional Studies Division).
3. The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines.
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 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.

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. Some grounds for unsatisfactory progress are as follows:

   i. The student has more than 3 unexcused assignment returns (such as Excel or HLS, on their final due dates) / absences.

   ii. The student misses (providing no reason) / or is caught cheating on an examination.

   If a student is suspected of unsatisfactory progress, the instructor will first issue a warning (oral) to the student. Upon issuance of the warning, the student has three (3) actual days to provide evidence supportive of the student's position. For any missed exam, the following evidence will be accepted as tenable excuse:

   o Written and valid doctor's excuse for illness,
   o Inability to reach class due to inclement weather (i.e. ice and/or snow, flooding, etc.),
   o Valid UNT sponsored event (must provide signed reference from head of sponsoring department.)

   If the student provides satisfactory evidence, the instructor will reinstate him or her into the class.

   If a student misses the final exam, he or she must provide the information stipulated above. If the excuse is acceptable, the instructor will submit an "I" for the final grade and the student must make up the exam within the first two (2) weeks of the following term. 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.

   If a student is caught cheating, he or she 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 Life.

   The syllabus on the next page is a tentative outline for the semester. It is meant to be a guide and several 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.

<u>**DSCI 3710 – Topics**</u>

HLS – **HLS: Business Statistics tutorials (**In the listing below HT stands for Hypothesis Testing.)
Reading assignments (sections) as well as Class Work (CW) & Home Work (HW) refer to **the new online textbook but you can get the same material in the older textbook by subtracting two from the chapter numbers listed below**. For example, chapter 10 below is 8 in the older textbook.

<u>WEEK</u>	<u>TOPICS</u>	<u>SECTIONS</u>	<u>CW, HW & ASSIGNM'TS</u>
January 14			Course policies
	Hypothesis testing for population mean - large samples. **Exclude calculations of power and beta; concepts only**	10.1	#10.1, 4, 5, 7, 8, 9 **HLS: Obtain authorization code**
January 21	One-tailed test for μ with large n	10.2	#10.19, 20, 22 **HLS1: 9.5 HT means (Z-value)**
	Use of p-values	10.3	#10.28, 32
January 28	Hypothesis tests for population mean - small n, introduction to t-tables	10.4	#10.37, 38, 40, 41, 43, 53, 54 **HLS2: 9.6 HT mean (t-value)** **HLS3: 9.4 HT means (p-value)**
	C.I. & hypothesis test for two population means - large independent samples.	11.1-11.2	#11.3, 9, 10, 13, 15 **HLS4:10.2 HT 2 means (σ known)**
February 4	C.I. & hypothesis test for two populations means - small independent samples. **Exclude hand calculations with unequal variance case**	11.3	#11.25, 26 **HLS5: 10.3 HT 2 means (σ – unknown)**
			Download Excel 1 Assignment
	Paired (dependent) small samples from two populations.	11.5	#11.47, 48, 49, 51 **HLS6: 10.4 Compare μ's (dep)**
February 11	F-test for two variances **right tailed tests- concept only**	11.4	#11.37, 38
			Download Excel 2 Assignment
			CASE 1: Comparing population Means - Excel Quiz 1 (Finance)
	One-way analysis of variance. **Exclude test for equality of variance**	11.6	#11.57, 58, 60 **HLS 7: 12.1 ANOVA**

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS

February 18   C.I. for population proportion: **large samples   12.1   #12.7, 8, 9
only**. Determination of sample size   **CASE 2:
                                                                 One-way ANOVA**

Hypothesis test for population proportion: 12.2   #12.17, 26, 27
                                                                 large samples only.

                                                                 **HLS 8: 9.3 HT
                                                                 proportions (Z)**
                                            HLS 9: 9.2 HT prop. (p-value)*

February 25 Comparing two population props. - large   12.3   #12.31, 34, 37
                                                                 independent samples.

                                                                 **HLS 10:10.1 HT 2
                                                                 proportions**

Catch up and Review

March 4   Catch up and Review   **Download Excel 3 Assignment**
                 ******* EXAM 1 (chapters 10-12)******

March 11   **Spring Break**   **read ahead!**

March 18   Chi-Square test for independence/homogeneity 12.4 #12.49, 64
                 Exclude pooling of contingencies

                 Chi-Square test: p-values using   #12.65
                 chi-square tables

                                                                 **HLS 11: 9.10 Chi-sq. test
                                                                 for association**

March 25   Bi-variate data & correlation   13.1   #13.2, 3, 4, 5
                 Covariance & Least Squares Line   #13.6, 7

                                                                 **HLS12: 11.1 Scatter Plots
                                                                 & Corr**

                                                        Simple linear regression,
                                               model assumptions,   13.2
                                                        #13.18, 19
   meaning of s^2 **HLS13: 11.2 Fit linear model**

                                               **CASE 3: Chi-Square test -
                                                   Excel Quiz 3 (Marketing)**

April 1   Simple linear regression: hypothesis test and   13.3   #13.23, 24, 25

C.I. for slope

Coefficient of determination, danger of assuming causality. **Exclude t-test for rho**	13.4	#13.33, 37
Estimation/Prediction	13.5	#13.45, 53
Residual analysis	13.6	#13.66
		HSL 14: 11.3 Regression anal. I

WEEK	TOPICS	SECTIONS	CW, HW & ASSIGNMENTS
April 8	Multiple regression:	14.1	#14.1, 2, 6 **HSL 15: 11.4 Mult regression** **HSL 16: 11.5 ANOVA regression**
	Global F- test vs individual t-tests	14.2	#14.13, 15, 17 **Download Excel 4 Assignment**
	Multicollinearity	14.3	#14.31, 32, 33
April 15	Dummy variables. Multiple regression **using Excel**	14.4	#14.39, 42, 49
	Step-wise Procedures, further residual analysis	14.4	
April 22	Multiple Regression Cases and Examples Catch-up and review		**CASE 4: Multiple Regression -** **Excel Quiz 4 (Real-Estate)**
April 29	Final Exam Review		
May 6	**FINALS WEEK** **The Comprehensive Final Exam for DSCI3710-090 will be held on** <mark>**Thursday**</mark>**,** <mark>**May 9**</mark>**,** <mark>**from 1:00 pm to 3:00 pm,**</mark> **in Room 101, Dal 2.**		

Certification due dates for the HLS: Business Statistics (HLS) Modules
Registrations due by 11:59 p.m. on the due date/s shown below: 16 x 10 pts. = 160 points

No.	Module	
1	9.5	Hyp. test for µ (Z-value)
2	9.6	Hyp. test for mean (t-value)
3	9.4	Hyp. test for µ (p-value)
4	10.2	Comparing two means (sigma known)
5	10.3	Comparing two means (sigma unknown)
6	10.4	Comparing means (dependent)
7	12.1	ANOVA
8	9.3	Hyp. test for proportions (Z-value)
9	9.2	Hypothesis test for proportions (p-value)
10	10.1	Comparing 2 proportions (large independent samples)
11	9.10	Chi-sq. test for association

These modules are ideally completed by 3/4/2013.

12	11.1	Scatter plots and Correlation
13	11.2	Fit linear model
14	11.3	Regression analysis I
15	11.4	Multiple Regression
16	11.5	ANOVA regression

These modules are ideally completed by 5/10/2013.

If you certify but are unable to register a certification, come see me. No modules are accepted after 5/10 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 10 pts. = 40 pts.

No	Topic	Quiz Dates
Excel CASE 1	Comparing population Means (Finance)	by 2/18
Excel CASE 2	1 way ANOVA (Marketing/ Management)	by 2/25
Excel CASE 3	Chi-Square test (Marketing)	by 3/25
Excel CASE 4	Multiple Regression (Real-Estate)	by 5/6

Excel case details are available through the Excel page on our course Web site at
http://www.coba.unt.edu/itds/courses/dsci3710/
[**OR**: COBA Web site > Departments > ITDS > Courses > DSCI Undergraduate > DSCI3710]

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

Student Getting Started Directions

TO PURCHASE THE SOFTWARE (an Access Code) FOR YOUR COURSE:
1. Go to www.hawkeslearning.com and click on **get your access code**.
2. Under the heading, I do not have a License Number, click the link to purchase an Access Code online.
3. Choose the product you need from the dropdown list.
4. Choose pay with Credit Card.
5. You will be taken to a secure site, where you will be asked to enter your credit card information. Please note that the address information MUST match the billing address of the credit card.
6. After your credit card information has been verified, you will be taken to a page where you will request an Access Code by entering your name, school, and email address.

Upon submitting the Access Code request, your Access Code will be emailed to you as well as displayed on the screen.

TO INSTALL THE SOFTWARE AT HOME:
1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the **My Computer** icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a **Course ID.**
   -**If you have internet access**, select "Yes, the Course ID is:" and enter **UNTDBSTAT** in the box provided.
   -**If you do not have internet access**, select the option that says "No, I will not be accessing an online progress report from this computer."

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:
1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the "F1-Load From Disk" option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a floppy disk or another option to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADEBOOK:
1. **If you have internet access** and have entered your Course ID (which is **UNTDBSTAT**), you will automatically be asked to enroll in your instructor's gradebook the first time that you log in to the software. Choose your instructor's name and the correct section from the pull-down menus.
2. **If you do not have internet access** on the computer where the software is installed, you will need to enroll in your instructor's gradebook by going to www.hawkeslearning.com/UNTDBSTAT . After entering your Access Code, you will be prompted to choose your instructor's name and the correct section from the pull-down menus.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):
1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3. **a. If you have internet access**, you should receive a message that says your certificate has been submitted in your instructor's gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under "**b.**".
   b. If you do not have internet access, you will need to save the certification code file to a disk and upload the saved file from your disk on the internet from campus to get credit for your assignment in your instructor's gradebook. To do this,
   - go to www.hawkeslearning.com/UNTDBSTAT and log in using your access code
   - click the Submit Certificate(s) link
   - select the Lesson Name from the drop down list. Load your certification code from a disk and click OK. Your certification code is now submitted!
   - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get credit for the assignment.
See www.hawkeslearning.com or Phone HLS at 843-571-2825 for help.