

DSCI 3710.002, Summer 2017 5W1 - Syllabus

CLASS (DAY/TIME): MTWR 12-1:50pm (sec2) Matthews 311
F June 9, 12-1:50pm, F July 7, 12-1:50pm
INSTRUCTOR: **Dr. Nick Evangelopoulos**
OFFICE: BLB 365D. PHONE: (940) 565-3056
OFFICE HRS: MTW 2:00-3:00 pm, or by appointment
E-MAIL (preferred): evangeln@unt.edu

REQUIRED SOFTWARE:

Hawkes Learning: Discovering Business Statistics by Nottingham. Note: This software is **required** to complete the assignments that are equivalent to a portion of one take home exam. Your personal access code to the software is required to obtain the lesson certifications, and to take the online WEBTEST quizzes. The software is available online (web access) and available for purchase at www.hawkeslearning.com. **Software access includes the eBook.**

HLS Student Web Access (Software + eBook): <https://learn.hawkeslearning.com/Portal/>
HLS training video: <http://tv.hawkeslearning.com/Video.htm?PlayerID=2956123671001>

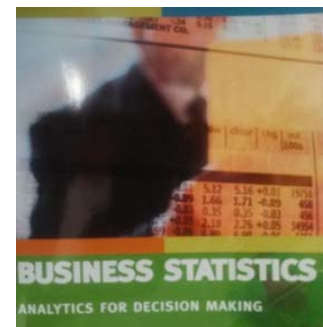
REQUIRED TEXTBOOK (e-book: required; hardbound: optional):

Discovering Business Statistics by Nottingham & Hawkes, Hawkes Learning. Two options are available to you: (1) HLS Software only (includes e-book): ISBN-13: 978-1-941552-85-8. (2) Hardbound textbook and HLS software bundle: ISBN-13: 978-1-941552-69-8. Note that, the textbook is also sold separately (Hardbound textbook only: ISBN-13: 978-1-935782-87-2); However, in this course, only the HLS software and e-book components are required. The *upgrade* to the *hardbound* text, (either by purchasing the software and the hardbound book separately, or by purchasing the hardbound book + HLS software bundle) is *optional*.



ALTERNATIVE TEXTBOOK:

Business Statistics: Analytics for Decision Making by Kvanli/Pavur/Keeling, CENGAGE. ISBN-13: 978-0495984948. If you already have a hard copy of this book, you may use it for additional reading. Access to its online material will not be required, so you do not need to have an access code for its e-book version.



IF YOU ARE LESS FAMILIAR WITH EXCEL:

Any Excel Primer – Any Excel reference that covers material similar to our BCIS 2610 course.

GOALS: At the end of the course, you 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): Discovering 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 methodology 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: Discovering 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.

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 for their final grade in the course. Final grades are only available electronically.

DSCI 3710 COURSE- SPECIFIC POLICIES:

1. **Tutorial Exercises:** Homework using the **Hawkes Learning Systems: Discovering Business Statistics (HLS)** is assigned. The due dates for the **HLS lessons** are listed 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. If you complete a lesson working offline and using your locally installed version of HLS software, you should **save the HLS certification code to your disk/flash drive and upload it by the due date**. Always double-check that you have received credit by going to your progress report by visiting <http://www.hawkeslearning.com/UNTDBS/>.

Late HLS lesson 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. *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).* You can download (save) instructions on how to get started and use HLS from their web site: <http://www.hawkeslearning.com/Support/InstallationInstructions.htm>. There is a full set of student directions that walk through the product completely on that page. See page 9 of this syllabus for a full set of HLS instructions.

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 hand-graded and have a 50% penalty.** Thereafter, the Excel case assignments receive no credit.
3. **Exams:** There is one in-class mid-term exam worth 200 points and a departmental comprehensive final worth 200 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.

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.

4. **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	<u>200</u>
TOTAL:	600

Letter Grades:

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

Extra Credit: Extra credit assignments are announced in class. They are intended to provide a bonus opportunity for the students that attend class. Email instructions for these assignments are not available.

6. **Tutoring Lab (BLB 131).** This 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 with statistics problems. It is not meant to be an extensive tutoring service. Hours will be announced in class and/or posted on the course website

DEPARTMENT, COLLEGE, and OTHER POLICIES

1. **PREREQUISITES:** 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 with a grade of C or better. **DSCI 2710** requires **MATH 1100 and 1190** as well as **BCIS 2610**. In addition, students are required to have completed: Accounting 2020 with grade “C” or better, and 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. **COMPLAINTS:** 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. Kulkarni (the course coordinator) and then the ITDS Department Chair Dr. Mary Jones, but **only after discussing it with your instructor**.
3. **EXAMS:** 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. As a general rule, the course format requires **no make-up exam** be given.
4. **ACADEMIC INTEGRITY:** This course adheres to the UNT policy on academic integrity. The

policy can be found at <http://vpaa.unt.edu/academic-integrity.htm>. If you engage in academic dishonesty you will receive a failing grade on the test or assignment, or a failing grade in the course.

In addition, the case may be referred to the Dean of Students for appropriate disciplinary action.

5. **STUDENTS WITH DISABILITIES:** The College of Business 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.
6. **DEADLINES:** 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.
7. **SPOT:** The Student Perceptions of Teaching (SPOT) is a requirement for all organized classes at UNT. This short Web-based survey will be made available to you at the end of the semester/session, providing you 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 SPOT to be an important part of your participation in this class.
8. **CELL PHONES:** As a courtesy to your instructor and to your fellow classmates, you are asked to set your cell phone to vibrate, or switch it off. In case of a personal emergency, if you must use your cell phone, you are asked to step out of the classroom.
9. **INCOMPLETE GRADE (I):** The grade of "I" is not given except for rare and very unusual emergencies, as per University guidelines. An "I" grade cannot be used to substitute your poor performance in class. If you think you will not be able to complete the class, please drop the course.
10. **CAMPUS CLOSING:** In the event of an official campus closing, please check your UNT e-mail (EagleConnect) for instructions on how to turn in assignments, how the due dates are modified, etc.
11. **COURSE DISMISSAL:**

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 missed assignments (such as Excel or HLS) without justification.
 - 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.), or (*) 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.

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.

DSCI 3710 – Topics

HLS# refer to **HLS lessons** (In the listing below HT stands for Hypothesis Testing.)

<u>DATE</u>	<u>TOPICS</u>	<u>HLS & Excel Assignments</u>
Week 1 (Jun 5 – Jun 9)		Dates assignments are covered in class – due dates are listed in HLS
Set 1	Course policies Hypothesis testing for population mean - large samples. Exclude calculations of power and beta; concepts only	HLS: Obtain authorization code
Set 2	One-tailed test for μ with large n Use of p-values	HLS1: 10.4a HT means (Z-value) HLS2: 10.4b HT mean (t-value) HLS3: 10.4c HT means (p-value)
Set 3	Hypothesis tests for population mean - small n, introduction to t-tables C.I. & hypothesis test for two populations means - large independent samples. No class on Friday, Jun 9 (extra time for HLS HW)	HLS4:11.1 HT 2 means (σ known)
Week 2 (Jun 12 – Jun 15)		
Set 4	C.I. & hypothesis test for two population means - small independent samples. Exclude hand calculations with unequal variance case Paired (dependent) small samples from two populations.	Excel CASE 1: Comparing Means (Finance) HLS5: 11.2 HT 2 means (σ – unknown)
Set 5	F-test for two variances right tailed tests- concept only One-way analysis of variance. Exclude test for equality of variance and Tukey test One-way analysis of variance. C.I. for population proportion: large samples only . Determination of sample size	HLS6: 11.3 Compare μ's (dep. n) Download Excel CASE 2 HLS 7: 12.2/12.4 ANOVA
	No class on Thursday, Jun 16 (extra time for HLS Quiz 1)	Excel CASE 2: One-way ANOVA (Marketing / Management) HLS 8: 10.7a HT proportions (Z)
Jun 16	*** Quiz 1 on HLS lessons 10.4a,10.4b,10.4c,10.7a,11.1,11.2,11.3,12.2/4 for 50 points *** Certification on these lessons (HLS assignments 1-8) is required to take the quiz.	

<u>DATE</u>	<u>TOPICS</u>	<u>HLS & Excel Assignments</u>
Week 3 (Jun 19 – Jun 22)		
	Set 6 Hypothesis test for population proportion: large samples only. Comparing two population props. - large independent samples.	HLS 9: 10.7b HT prop. (p-value)
	Set 7 Catch up and Review for Exam 1	HLS 10:11.4 HT 2 proportions
Jun 21	***** EXAM 1 ***** Regular classroom, regular time Exam and answer key are returned	Download Excel CASE 3
Week 4 (Jun 26 – Jun 29)		
	Set 9 Chi-Square test for independence/homogeneity Exclude pooling of contingencies Chi-Square test: p-values using chi-square tables	HLS 11: 15.3 Chi-sq. test for association Excel CASE 3: Chi-Square test (Marketing)
	Bi-variate data & correlation Covariance & Least Squares Line Simple linear regression, model assumptions, meaning of s^2	HLS12: 4.8 Scatter Plots & Corr HLS13: 13.1/13.5 Fit linear model
Jun 28	(Wednesday before 5 PM) ***** LAST DAY TO DROP (FOR W/WF) *****	
	Set 10 Simple linear regression: hypothesis test and C.I. for slope Coefficient of determination, danger of assuming causality. Exclude t-test for rho	Download Excel CASE 4 HLS 14: 13.8 Regression I
	Set 11 Estimation/Prediction Residual analysis	HLS 15: 14.5a Mult. Regression HLS 16: 14.5b ANOVA regression
Week 5 (Jul 3 – Jul 7)		
	Multiple regression: Global F- test vs individual t-tests	HLS 15: 14.5a Mult regression HLS 16: 14.5b ANOVA regression
	Set 12 Dummy variables. Multiple regression using Excel Step-wise Procedures, further residual analysis	Excel CASE 4: Mult. Regression (Real-Estate)
	Set 13 Multiple Regression Cases and Examples	
Jul 5	Set 14 Review for the Final Exam on Wednesday, Jul 5	
Jul 6	No class on Thursday, Jul 6 (extra time for HLS Quiz 2) *** Quiz 2 on HLS lessons 10.7b,11.4,15.3,4.8,13.1/13.5,13.8,14.5a,14.5b for 50 points*** Certification on these lessons (HLS assignments 9-16) is required to take the quiz.	
Jul 7	*** COMPREHENSIVE FINAL EXAM: Friday, Jul 7, regular classroom/time *** Note: At UNT, during the Summer Sessions, Final Exams take place on a Friday , even though classes meet M-Th.	

HLS Student Getting Started Directions

TO GET THE ACCESS CODE FOR YOUR COURSE:

1. Go to <http://www.hawkeslearning.com/Support/GetYourAccessCode.htm>. Phone HLS at 843-571-2825 for help.
2. There will be three options on the above link and each option is explained clearly.
3. Choose the appropriate option that is applicable to you (for example “Purchase an access code”)
4. If you are purchasing the access code anew, 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.
5. 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 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 flash drive 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 **Hawkes Course ID** (which is [UNTDBS](#)), 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/UNTDBS. 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 <https://course.hawkeslearning.com/UNTDBS/Default.asp> 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 full credit for the assignment.**

Assignment Due dates: Online registration due dates for the HLSDBS (HLS) Lessons

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

	<u>Lesson</u>	<u>Lesson Name</u>	<u>Due Date</u>
1	10.4a	Hypothesis test for mean (Z-value)	6/8
2	10.4b	Hypothesis test for mean (t-value)	6/10
3	10.4c	Hypothesis test for mean (p-value)	6/10
4	11.1	Comparing two means (sigma known)	6/13
5	11.2	Comparing two means (sigma unknown)	6/14
6	11.3	Two means (dependent samples/paired differences)	6/14
7	12.2/12.4	ANOVA	6/15
8	10.7a	Hypothesis test for proportions (Z-value)	6/15
		HLS Quiz #1 (covering lessons 1-8)	6/16
9	10.7b	Hypothesis test for proportions (p-value)	6/21
10	11.4	Comparing 2 proportions (large indep. samples)	6/21
11	15.3	Chi-square test for association	6/28
12	4.8	Scatter plots and Correlation	6/28
13	13.1/13.5	Fit linear model	6/30
14	13.8	Regression analysis I	6/30
15	14.5a	Multiple Regression	7/5
16	14.5b	ANOVA regression	7/5
		HLS Quiz #2 (covering lessons 9-16)	7/6

Lesson registration is due by (11:59pm) of due date as “logged-in” on the WEB registration system. After completing a lesson in a COB 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 lessons 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 lessons are taken after **the last class day before the final.**

Excel Cases: 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 are listed in your HLS Progress Report</u>
Excel CASE 1	Comparing population Means (Multicultural)	6/14
Excel CASE 2	One-way ANOVA (Marketing/ Management)	6/20
Excel CASE 3	Chi-Square test (Marketing)	6/27
Excel CASE 4	Multiple Regression (Real-Estate)	7/5

Excel case details are available on Blackboard

Each excel case is evaluated using a short quiz based on it, given using an HLS 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.

Exams:	Mid-term Exam (regular classroom)	6/21 (Wednesday)
	Final Exam (regular classroom)	7/7 (Friday)