

DSCI 3710.004/006– Fall 2021 – Syllabus

CLASS (DAY/TIME/LOCATION): NOT APPLICABLE (ONLINE SECTION)

INSTRUCTOR: Dr. Hakan Tarakci

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E-MAIL: hakan.tarakci@unt.edu

OFFICE HRS: Tue 8-9.30 and Thu 8-9.30 ONLINE (via Zoom)

COURSE WEB SITE(S): <https://course.hawkeslearning.com/UNTDBS/> for course material.

We also will make use of UNT's Canvas Learning Portal.

REQUIRED SOFTWARE:

Hawkes Learning: Discovering Business Statistics by Nottingham

This software is REQUIRED to complete the assigned work (organized in Modules) for the class. Your personal access code to the software will enable you complete the lesson certifications and Web-based tests, (called HLS lessons and Module Quizzes). The software may be purchased online at [Hawkes Learning website](http://learn.hawkeslearning.com/) (<http://learn.hawkeslearning.com/>). Once you have purchased the access-rights to the software, you may complete any/all class-work using HLS Network version accessed through the [HLS portal \(Links to an external site.\)](https://learn.hawkeslearning.com/Portal/User/Login?ReturnUrl=%2fPortal) (<https://learn.hawkeslearning.com/Portal/User/Login?ReturnUrl=%2fPortal>). When registering for the course, be sure to enter your name as the registrar at UNT has it; and choose University of North Texas-Denton as the campus. **Remember to choose the correct instructor.** The software includes access to the eBook.

If you took DSCI 2710/3710 and have an access code **for the above product**, then you can **reuse** it. If you have an access code for **a different product**, then you will **have to buy a new code**.

Note: It might be cheaper to purchase the digital access to Hawkes from the UNT bookstore or off-campus bookstores (the difference will probably be a few dollars). Please check all the prices before you make your purchase.

Please see the **Student Getting Started Directions** page at the end of this syllabus. (@ page # 10).

Microsoft Excel with Data Analysis

You may be familiar with Excel; but its essential use for this course is illustrated in the Text (under the "Discovering Technology" segment) and on the [Hawkes Learning website \(Links to an external site.\)](#). As a UNT student, you can [install Microsoft Office for free through the UIT Help Desk \(Links to an external site.\)](#).

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 how it is relevant for your future coursework and decision making,
3. be better able to read, understand and 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 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. The use of spreadsheets in analyzing business data will be stressed.
4. You should work on the homework assignments (HLS lessons and Excel case studies). The case studies and the Hawkes Learning lessons are intended to assist you in better structuring the learning time you spend on mastering the course material. Exam questions will mostly refer to these assigned exercises. The best way to prepare for exams is to go over the practice exams posted on Canvas.

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. You should not hesitate to ask questions to me, (the professor, Dr. Tarakci). Since we do not meet in person in class, such questions become even more important for an online class.
3. Regular monitoring of the course material posted on Canvas is expected. 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 Quizzes on Excel cases are graded, 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. **For each Excel Quiz, you will get unlimited attempts and the highest one will count.** Note: If you miss any Excel Quizzes or get a low score in one, I may replace that low or zero score with 50% of the maximum quiz score.
3. **Tutorial Exercises:** Tutorial exercises, also referred to as modules and homeworks, 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 as well as bonus points (two extra credit points per module). On completion of a module in a COB 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 always double 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 <https://course.hawkeslearning.com/untbstat/default.asp>.

Late tutorial submissions still receive full credit, provided they are registered by **the end of day on December 11, 2021**; however, no bonus points are earned. No credit is awarded for any tutorial exercise completed after this date. *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. PLEASE SEE PAGE 11 of this syllabus for detailed instructions. If you previously purchased the software and lost your code you should either visit*

<http://www.hawkeslearning.com/Support/GetYourAccessCode/AccessCodeLookup.htm> *or send an E-mail 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).* See page 11 of this syllabus for a full set of HLS instructions. You can also download (save) a comprehensive set of instructions directly from the HLS web site by going

to: <http://www.hawkeslearning.com/Support/InstallationInstructions.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 mid-term exam and one comprehensive final exam. Each one is worth **250 points**. **Both of these exams will be available on Canvas.** No make-up exams are given, however, if a student misses the first 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). Each exam will be open book, open notes, open laptop etc. Any issues related to on time completion or credit for the modules and online quizzes/exams 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 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. 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 400 points (@ 25 points each); The 4 online Excel case quizzes are worth a total of 100 points (@25 pts. each); The mid-term exam and the final exam are worth 250 points each.

Point Allocation:

Mid-term Exam	250
HLS Tutorials (16*25 pts)	400
Online Excel quizzes (4 * 50 pts)	100
<u>Final Exam</u>	<u>250</u>
TOTAL:	1,000

Extra Credit: Each HLS Tutorial that you finish on time earns you 2 extra credit points. That means a student who finishes all tutorials on time will receive 32 points in addition to the 400 points for homework. These extra credit points are added to your total but the maximum score is still out of 1,000 points.

6. **Letter Grades:** If you achieve the following thresholds below, you are **guaranteed** to receive the letter grade listed next to them:
- ≥ 900 points → A
 - ≥ 800 points → B
 - ≥ 700 points → C
 - ≥ 600 points → D
 - < 600 points → 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 a grade of C or better. **DSCI 2710** requires **MATH 1100 and 1190** as well **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. 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. Hakan Tarakci hakan.tarakci@unt.edu (the course coordinator) and then the ITDS Department Chair (Dr. Leon Kappelman, leon.kappelman@unt.edu), 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. 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.
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 the email 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).

- 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. **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 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 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

NOTE: THE DATES BELOW ARE TENTATIVE. FOR THE MOST UP-TO-DATE INFORMATION, REFER TO HAWKES AND CANVAS.

(HLS# means HLS: Business Statistics tutorials, HT means Hypothesis Testing.)

For important add/drop etc. dates see <http://registrar.unt.edu/registration/spring-registration-guide>

<u>WEEK</u>	<u>TOPICS</u>	<u>HLS and Excel Assignments</u>
Week 1 (Aug 23-29)	Course policies Hypothesis testing for Population mean - large samples. Exclude Calculations of power and beta; concepts only	Dates assignments are covered in class – due dates are listed in HLS HLS: Obtain authorization code
	One-tailed test for μ with large n Use of p-values	HLS1: 10.4a HT means (Z-value)
Week 2 (Aug 30-Sep 5)	Hypothesis tests for population mean - small n, introduction to t-tables	HLS2: 10.4b HT mean (t-value) HLS3: 10.4c HT means (p-value)
Week 3 (Sep 6-12)	C.I. & hypothesis test for two populations means - large independent samples.	HLS4:11.1 HT 2 means (σ known)
	C.I. & hypothesis test for two populations means - small independent samples. Exclude hand calculation for DF with unequal variance case	HLS5: 11.2 HT 2 means (σ – unknown)
	Paired (dependent) small samples from two populations.	HLS6: 11.3 Compare μ's (dep. n)
Week 4 (Sep 13-19)	F-test for two variances right tailed tests- concept only	HLS 7: 12.2-12.4 ANOVA
	One-way analysis of variance. Exclude calculations for test for equality of variance and hand calculation for Tukey test	CASE 1: Comparing population Means - Excel Quiz 1 (Multicultural)
Week 5 (Sep 20-26)	C.I. for population proportion: large samples only. Determination of sample size	HLS 8: 10.7a HT proportions (Z)
	Hypothesis test for population proportion: Large samples	

<u>WEEK</u>	<u>TOPICS</u>	<u>HLS and Excel Assignments</u>
Week 6 (Sep 27-Oct 3)	Hypothesis test for population proportion: Large samples (continued)	HLS 9: 10.7b HT prop. (p-value)*
Week 7 (Oct 4-10)	Comparing two population props. - large independent samples.	HLS 10: 11.4 HT 2 proportions*
Week 8 (Oct 11-17)	Catch up and Review	CASE 2: One-way ANOVA Excel Quiz 2 (Marketing / Management)
<div style="text-align: center;"> Sat, Oct 16-Sun, Oct 17 ***** EXAM 1 ***** Will be available online on Canvas from Sat morning to Sun night </div>		
Week 9 (Oct 18-24)	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
Week 10 (Oct 25-31)	Bi-variate data & correlation Covariance & Least Squares Line	HLS12: 4.8 Scatter Plots & Corr
Week 11 (Nov 1-7)	Simple linear regression, model assumptions, meaning of s^2	HLS13: 13.1-13.5 Fit linear model CASE 3: Chi-Square test - Excel Quiz 3 (Marketing)
Week 12 (Nov 8-14)	Simple linear regression: hypothesis test and C.I. for slope Coefficient of determination, danger of assuming causality. Exclude t-test for rho	HSL 14: 13.8 Regression I
Week 13 (Nov 15-21)	Estimation/Prediction Residual analysis Dummy variables Multiple regression using Excel	HLS 15: 14.5a Multi regression
Week 14 (Nov 22-28)	Global F- test vs individual t-tests	HLS 16: 14.5b ANOVA regression CASE 4: Multiple Regression Excel Quiz 4 (Real Estate)

Week 15 (Nov 29-Dec 2)

Catch up and Review

Finals Week (Dec 4-5)

Sat, Dec 4-Sun Dec 5

**** COMPREHENSIVE FINAL EXAM ****

Will be available online on Canvas from Sat morning to Sun night

Assignment Due dates: Online registration due dates for the HLS: Business Statistics (HLS) Modules are shown in your HLS Progress Report. All modules are due by 11:59 pm of the slated due date.

(16 x 25 pts. = 400 pts)

<u>No.</u>	<u>Module #</u>	<u>Module Name</u>	<u>Due Date</u>
1	10.4a	Hyp. test for μ (Z-value)	Sep 19 th
2	10.4b	Hyp. test for μ (t-value)	
3	10.4c	Hyp. test for μ (p-value)	
4	11.1	Comparing two means (sigma known)	
5	11.2	Comparing two means (sigma unknown)	
6	11.3	Comparing means (depend n)	
7	12.2-12.4	ANOVA	Oct 17 th
8	10.7a	Hyp. test for proportions (Z-value)	
9	10.7b	Hypothesis test for proportions (p-value)	
10	11.4	Comparing 2 proportions (large independent samples)	
11	15.3	Chi-sq. test for association	Nov 7 th
12	4.8	Scatter plots and Correlation	
13	13.1-13.5	Fit linear model	Nov 28 th
14	13.8	Regression analysis I	
15	14.5a	Multiple Regression	
16	14.5b	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 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 for full credit but no bonus points. 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. No late modules are taken after **Dec 11, 2021**.

Quizzes: Your grade on the case is based on the quiz: 4 x 25 pts. = 100 pts.

<u>No</u>	<u>Topic</u>	<u>Due Date</u>
Excel CASE 1	Comparing population Means (Multicultural)	Sep 19 th
Excel CASE 2	1 way ANOVA (Marketing/ Management)	Oct 17 th
Excel CASE 3	Chi-Square test (Marketing)	Nov 7 th
Excel CASE 4	Multiple Regression (Real-Estate)	Nov 28 th

Excel case details are available through the Excel page on our course Web site at

<https://course.hawkeslearning.com/UNTDBS/>

[wherein you can go to: My Tools > Course Materials > Excel Assignments]

Each excel case is evaluated using a short quiz based on it, given using WEBTEST on the due date. The quiz contains 5 questions (25 points) and students need to use their own analysis printout to answer the questions. You get an unlimited number of attempts and the higher grade counts.

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

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 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 **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.**