# **DSCI 2710.007: Data Analysis with Spreadsheets**

#### **Instructor Contact**

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### **REQUIRED SOFTWARE:**

• Canvas: The lecture notes, Excel case files, Case quizzes, all of the exams, and other material will be posted on Canvas, so please make sure you keep up and check Canvas often.

• Excel, installed in the College of Business computer lab.

- COURSE WEB SITE(S): You will be using Hawkes Learning materials for this course. To access Hawkes, click the Hawkes Single Sign-On link through Canvas in the Hawkes Learning Module.
- **REQUIRED COURSEWARE:** *Discovering Business Statistics* by Quinton Nottingham and James Hawkes **ISBN:** 978-1-64277-510-5 (Courseware + eBook + Textbook)



Software access includes the eBook. The hardbound book is not required.

RECOMMENDED BOOK (for further reading/comprehension):

**Discovering Business Statistics** by Nottingham/Hawkes, Hawkes Learning, ISBN: 978-1-64277-510-5

The software access code is **required** to complete the assignments (HLS Modules). If you took DSCI 2710 previously and have an access code **for the above product**, then you can **reuse** it.

If you need to purchase access, you may do so either from the UNT bookstore or through your Hawkes account. To purchase through Hawkes, simply click the Hawkes Learning link in Canvas and click the Activate button on your dashboard.

For a full tutorial of the Hawkes website, please watch the following video: <a href="http://tv.hawkeslearning.com/VideoPlayerSingle.htm?PlayerID=5062857235001">http://tv.hawkeslearning.com/VideoPlayerSingle.htm?PlayerID=5062857235001</a>

For any questions or technical issues with the Hawkes courseware, please reach out directly to their Tech Support Team via LiveChat (<a href="http://chat.hawkeslearning.com">http://chat.hawkeslearning.com</a>) or phone (1-800-426-9538) (M-F 7 am-9 pm CST)

#### 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 should:

- 1. have an increased appreciation for the use of statistics in business decision-making,
- 2. be better able to select the appropriate statistical tool/methodology to aid in business decision-making,
- 3. be able to use a computer spreadsheet program such as **Excel** to describe and analyze numerical data,
- 4. be better able to communicate in the language of applied business statistics,
- 5. have acquired a more positive attitude toward business statistics,
- 6. be able to manipulate simple statistical formulae to solve non-verbal (numerical) problems,
- 7. have an enhanced ability to follow directions and instructions,
- 8. have a much better vision of how analytics are used in analysis and business decisions,
- 9. understand more about the job/career potential of analytics and Decision Sciences.
- 10. Think about becoming a Decision Sciences Major!

#### **TEACHING METHOD:**

- You 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 you in understanding the use of these methodologies in business, many of the class problems will be presented as simple business cases.
- You should <u>study</u> the material in the PowerPoint slides. You are strongly encouraged to try to independently solve the problems included in the lecture slides, not simply verify that the provided solutions "make sense."
- You should <u>work</u> 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 your ability to use quantitative techniques in business, you will be evaluated on a number of homework assignments, Excel case studies, and exam questions. Rather than being purely numerical, exam and case problems will be presented in word format. Many Hawkes Learning (HLS) lesson assignments will also be presented in word format. You will work on Excel case studies that require you to use an Excel spreadsheet to analyze and describe real-world business data. By simulating real business problems and using the language of statistics, these evaluation instruments will reinforce the course objectives.

#### **GENERAL COMMENTS**

- 1. This course is an Introductory Statistics equivalence with the state of Texas (MATH 1342 THECB approval ID: 27.0501.51 19) and involves collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Understand that critical thinking, analysis, and evaluation are key to the format of this course.
- 2. Doing the assignments is essential for success in this course. In fact, the assignments constitute a large portion of your grade in this course. You are encouraged to keep up with the homework and meet the submission deadlines.
- 3. You should not hesitate to ask questions to me, (the professor, Dr. Hamilton) or the teaching assistant. I will try to keep a FAQ section on Canvas for commonly asked questions.
- 4. Regular monitoring of the course material posted on Canvas is expected. There will be no make-up if you miss any of the mid-term exams unless you have a university-approved excuse. Whenever applicable, such an excuse is to be provided to the instructor in writing as early as possible.
- 5. You have the final responsibility for seeing that you properly withdraw before the scheduled last drop day in case you wish to withdraw from/ drop the course. If you stop attending class, you should execute the drop procedure since failure to do so will result in a grade of "F," which cannot be changed.

#### **DSCI 2710 COURSE- SPECIFIC POLICIES:**

1. **HLS Lessons:** Homework using the **Hawkes Learning: Discovering Business Statistics** is assigned. The due dates for the **HLS lessons** are listed on this syllabus. These form a significant part of the course grade and **must be completed by the due date** to receive full credit as well as bonus points (one extra credit point per module). Credit for the homework is applied upon the demonstration of mastery in the "Certify" section of the Hawkes Learning portal, and no partial credit is awarded. Late tutorial submissions still receive full credit, provided they are completed by **the end of the day on Dec 15th, 2023;** however, no bonus points are earned. No credit is awarded for any tutorial exercise completed after this

date.

- 2. **Excel Quizzes / Case Study:** Projects involving the use of **Excel** to analyze business data are assigned. These are an important part of the course grade. For each case assignment, a data set will be provided. These case assignments will use Excel. There will be two online quizzes in Canvas to verify your Excel case comprehension and apply your knowledge on that quiz. There will be one business case study where students will be expected to conduct their own analysis using the provided data in a spreadsheet. This will satisfy the Communication component for university accreditation.
- 3. **Exams:** There will be two exams. The final exam is held on the UNT scheduled final exam time (for details on the final exam schedule, check the site <a href="https://registrar.unt.edu/exams/">https://registrar.unt.edu/exams/</a>) INET Sections: All exams will be available on Canvas. For each exam, you will be given a short period of time (typically about 48 hours) in which you will need to be ready to take the timed exam. More details on the online exams will be posted on Canvas.
- 4. **Grading:** The 12 HLS lessons are worth a total of 300 points (@ 25 points each); The 8 Excel case assignments are worth a total of 400 points (50pts), and the course exams offer a total of 300 points (@150 pts each)

#### **Course Point Allocation:**

Exam #1	150
Exam #2	150
HLS Lessons (Hawkes Learning)	300 (25 points each)
Excel case Quizzes	400 (50 points each)
TOTAL	1,000

5. **Letter Grades:** If you achieve the following thresholds, you are **guaranteed** to receive the letter grade listed next to them:  $\geq 900$  points (or  $\geq 90\%$ )  $\rightarrow$  A.

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\geq 800 points (or \geq 80%) \rightarrow B

\geq 700 points (or \geq 70%) \rightarrow C

\geq 6000 points (or \geq 60%) \rightarrow D

< 600 points (or below 60%) \rightarrow F
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- 6. **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 24 points in addition to the 300 points for homework. These extra credit points are added to your total, but the maximum score is still out of 1,000 points. There will also be opportunities for extra credit during in-class exercises and activities.
- 7. **Communication:** All course-related emails must include DSCI 2710-007 < subject in the subject line. This triggers an alert to draw your instructor's attention to your email. You should expect a response within 48 hours. Emails that don't follow the convention will be missed.

### DEPARTMENT, COLLEGE, and OTHER POLICIES

1. 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. Scott Hamilton (the course coordinator) and then the ITDS Department Chair Dr. Anna Sidorova, but **only after first discussing it with your instructor**.

- 2. EXAMS: You are required to take all exams unless a written medical or other UNT-approved excuse is provided. In that case, you should discuss the alternative arrangements with your instructor. As a general rule, the course format does not allow **make-up exams**.
- 3. ACADEMIC INTEGRITY: This course adheres to the UNT policy on academic integrity. The policy can be found at <a href="https://vpaa.unt.edu/fs/resources/academic/integrity">https://vpaa.unt.edu/fs/resources/academic/integrity</a>. 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 reported to the UNT Dean of Students/Academic Integrity Office, which maintains a database of related violations.
- 4. 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, you should register with the Office for Disability Accommodations and receive further instructions. Please see your instructor as soon as possible if you have any questions.
- 5. 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.
- 6. SPOT: The Student Perceptions of Teaching (SPOT) is required for all UNT-organized classes. This short Web-based survey will be available to you at the end of the semester/session, allowing you to comment on how this class is taught. I am very interested in the feedback I get from students as I work to improve my teaching continually. SPOT is an important part of your participation in this class.
- 7. 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 for your poor performance in class. If you won't be able to pass, please drop the course.
- 8. CAMPUS CLOSING: In the event of an official campus closing, please check your UNT e-mail for instructions on how to turn in assignments, how the due dates are modified, etc.

# **DSCI 2710 Schedule**

Week	<b>Topics and Sections in Text</b>	HLS Lesson
Module 1	Data Classifications	2.3
	Frequency Distributions	Chapter 3 Review
	Graphical Displays of	
	Quantitative Data	Read Chapters 2-3
Module 2	Measures of Location	4.2
	and Dispersion	Chapter 4 Review
	Data Subsetting	
	Proportions	
	Measures of Association	D. I.Cl. A
	Between Two Variables	Read Chapter 4
Module 3	Time Series Components	Chapter 15 Review
	Simple Moving Averages	
		Read Chapters 15.1 - 15.2
	EXAM #1	Chapter 7 Review
Module 4	The Normal Distribution	
	The Standard Normal	Read Chapter 7
	Distribution	
	Continuous Random	7.4
Module 5	Variables Distribution	
	Random Samples and	Read Chapter 7.4
	Sampling Distributions	
Module 6		
	Random Samples and	8.1
	Sampling Distributions	8.2
		8.4
		Read Chapters 8.1-4
Module 7	Interval Estimation of	9.1
	Population Mean, σ	9.2
	Known and σ Unknown	Read Chapters 9.1 - 9.2
		11000 Onapters 2.1 - 2.2
Module 8	EXAM #2	

### **HLS Lesson Due dates:**

Lesson registration is due by 11:59 pm CT on the WEB registration system. Late submissions forego the 1-point extra credit. No submissions are accepted after 15th Dec. 2023

Number	HLS Lesson	Due Date
1	2.3 Data Classification	09/04/2023
2	Chapter 3 Review	09/04/2023
3	4.2 Measures of Dispersion	09/18/2023
4	Chapter 4 Review	09/18/2023
5	Chapter 15 Review	10/02/2023
6	Chapter 7 Review	10/16/2023
7	7.4 The Standard Normal Distribution	10/30/2023
8	8.1 Random Samples and Sampling Distributions	10/30/2023
9	8.2 The Distribution of the Sample Mean and Central Limit Theorem	10/30/2023
10	8.4 Sampling Methods	11/13/2023
11	9.1 Estimating the Population Mean, Sigma Known	11/27/2023
12	9.2 Estimating the Population Mean, Sigma Unknown	11/27/2023

## **Case Assignments:**

- CASE 1 Quiz: Charts and Proportions
- CASE 2 Quiz: Pivot Tables and Frequency Distributions
- CASE 3 Quiz: Merging Datasets (VLOOKUP) & Descriptive
- CASE 4 Quiz: Forecast / Time Series Analysis
- CASE 5 Quiz: Normal Distribution Probabilities
- CASE 6 Quiz: If formulas
- CASE 7 Quiz: Filtering and Sample Distribution
- CASE 8 Quiz: Calculate and Transform Data

#### **Exams:**

- Exam 1 October 12<sup>th</sup> through October 17<sup>th</sup>
- Exam 2 December 12th UNT Fall 2023 Final Exam Schedule

## Fall 2023 Final Exam Schedule

Main Campus Classes	•
Discovery Park Classes	0
Eight Week Classes	0
Accounting Department Classes	0
Frisco Campus Classes	0
Online Classes	8

Online classes that have an in-person final should check their class syllabus or contact their instructor for the date, time, and location for their final exam.

Synchronous online courses (online courses meeting at a regularly scheduled time) should be scheduled in accordance with the normal Final Exam schedule shown above.

Faculty teaching Asynchronous online courses (online courses that do NOT meet at a regularly scheduled time) are strongly encouraged to offer online exams. Faculty planning to schedule a period during which students can take a final exam should include the schedule time on their syllabus and adhere to this schedule:

INSTRUCTOR'S LAST NAME BEGINS WITH	YOUR FINAL EXAM PERIOD SHOULD INCLUDE
A - G	Monday, December 11 or Tuesday, December 12
H-M	Tuesday, December 12 or Wednesday, December 13