

The University of Texas at Dallas
Financial Information and Analysis · FIN 4345-501
Course Syllabus

Course Information

FIN 4345-501 Financial Information and Analysis
Term: Fall 2017
Meeting times: Thursday 7:00 pm – 9:45 pm
Classroom: JSOM 2.2714

Instructor Contact Information

Jeffrey Ayres, PhD, MBA, MS GIS, CPA
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Phone: 469-323-7459
Office Hours: by appointment

Note: Students are encouraged to send their queries and comments related to the course by e-mail to the above address using their UTD e-mail accounts. Students can also send e-mail messages to their instructor as well as to other students in the class using the e-mail facility in eLearning. Since the above telephone number is not a campus office, please limit your telephone calls to emergencies only.

Course Pre-requisites

Introduction to Financial Modeling – FIN 3390

Course Description

This is an applied course in financial data analysis and analytics. This course examines the different sources of financial data, their management and their use in research, analysis and decision making. The course focuses on advanced features of Excel including Power Query as well as advanced business intelligence software such as Tableau to more fully develop business intelligence and visualization skills in high demand by today's employers.

Course Learning Objectives

Students will:

1. Effectively use spreadsheet (Excel) and business intelligence (BI) technology (Tableau) to apply data visualization and statistical techniques to discern patterns and relationships in financial data.
 2. Successfully use spreadsheet and BI technology to build financial analytical and forecasting models.
 3. Communicate the results of their financial analysis and forecasting models clearly and concisely.
 4. Be introduced to other large data platforms such as ESRI's ArcGIS (geographic information system).
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Textbook - recommended but not required

Business Analytics: Data Analysis and Decision Making (6th Edition) by S Christian Albright
ISBN-10: 1259025772

Required Laptop Computer Each student must bring a laptop computer (preferably a PC) to class with Microsoft Excel 2013 or later installed. The majority of work in this course requires the use of a computer, and most classes will include exercises for the students to complete on their own computers.

Class Format

The class format will include classroom lectures and discussions of the theory and techniques of data analysis as well as computer practice problem sessions for working exercises in Excel. Both the classroom lectures and the computer practice problem sessions will be conducted in the assigned classroom and not in a separate computer lab.

Class Schedule

Class/Date/Topic Description

1. Aug 24 – Class orientation
List of Internet Sources of Financial Information
2. Aug 31 - Tableau – introduction
Power Query / Data Basics
Introduction to data analysis and decision making (Chapter 1)
Describing the distribution of a single variable (Chapter 2)
3. Sep 7 - Bank analysis 101
Large data downloads
Importing data into Excel (Chapter 18)
Data Blending
4. Sep 14 - Tableau – the next step
Finding Relationships among variables (Chapter 3)
5. Sep 21 - Data visualization
Dashboards
6. Sep 28 – Work on Midterm project
7. Oct 5 – Midterm Presentations
8. Oct 12 - Advanced Topics
9. Oct 19 - Advanced topics
10. Oct 26 - Advanced topics
11. Nov 2 - Advanced topics
12. Nov 9- Decision making under uncertainty (Chapter 6)
13. Nov 16 - Work on Final Presentations
Geospatial Information Science and large data
Mapping in Tableau
14. Nov 23 - Happy Thanksgiving!
15. Nov 30 – Final Presentations
16. Dec 7 – Final Presentations

Class Attendance

You are expected to attend all classes and to arrive on time. You are responsible for the material assigned for outside reading as well as the material covered in class. If you are absent from a class, you should contact another student to get a copy of the student's class notes. Class time will be spent discussing important concepts, working

exercises and answering questions. Therefore, I will assume that you have completed any assigned outside reading before class. It is your responsibility to come to class with questions concerning any material which you do not understand. Remember, studies show that grades are highly correlated with attendance.

Classroom Policy

Each student in the class is making a significant investment in time and money to take this course. We must all respect our fellow students by conducting the class in a professional manner. A student entering or leaving the classroom after the class has begun distracts the attention of other students. Cell phones interrupt the instructor's presentation and the students' concentration. Therefore, please arrive at the classroom prior to the scheduled class time and silence your cell phone. Text messaging, MP3 players and similar electronic devices are not permitted during class hours. Laptop computers may be used only for taking class notes and completing class activities as directed by the instructor. Surfing the web and e-mailing are not permitted during class hours.

Grading Policy

Your grade in the course will be based on the following items:

Midterm Project: (15 points)

1. Acquire a large dataset approved by instructor.
2. Explore the data.
3. Provide summary statistics about what is being measured.
4. Develop the preliminary story.
5. Prepare a 3-5 page report that explains your data, why you selected this dataset and what you hope to learn.

Assignments: (4 Assignments, 10 points each) 40 points

Final Project: (35 points)

1. Acquire large dataset approved by instructor. This can be the dataset you used for the midterm or a new dataset.
2. Develop a story to explain a key indicator(s).
3. Create a story book to explain in class.
4. Create a Dashboard that you can show and discuss in class.
5. Prepare a report between 5-10 pages to explain your objective, tell the story of your analysis and major conclusions.

Participation: (10 points) that includes interaction in class.

These are the only scores that will be used to determine your grade. No extra work or repeat exams will be given. Your final letter grade will be determined as follows:

A = 90 – 100

B = 80 – 89

C = 70 – 79

F = Below 70

Technical Support

If you experience any issues with your UT Dallas account, contact the UT Dallas Information Resources Help Desk: assist@utdallas.edu or call 972-883-2911.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Support Center: <http://www.utdallas.edu/elearninghelp>.

Student Conduct and Discipline

The University of Texas System (Regents' Rule 50101) and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UT Dallas online catalogs (<http://catalog.utdallas.edu>).

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Student Discipline and Conduct, UTDSP5003 (<http://policy.utdallas.edu/utdsp5003>). Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at <http://www.utdallas.edu/deanofstudents>.

A student at the University neither loses their rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating its standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity

Academic Dishonesty: The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment.

Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: <http://www.utdallas.edu/deanofstudents/maintain/>

Remember, the Comet Creed: "As a Comet, I pledge honesty, integrity, and service that all that I do."

Copyright Notice

It is the policy of the University of Texas at Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, (*Title 17, United States Code*), including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded. Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. For more information about the fair use exemption, see <http://copyright.lib.utexas.edu/copypol2.html>. As a UT Dallas student, you are required to follow UT Dallas' copyright policy (UTDPP1043 at <http://policy.utdallas.edu/utdpp1043>) and the UT System's policy at <http://www.utsystem.edu/ogc/intellectualproperty/copyrighthome.htm>.

Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student

email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to <http://netid.utdallas.edu>.

Class Attendance

Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. Absences may lower a student's grade where class attendance and class participation are deemed essential by the instructor. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

Withdrawal from Class

The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (<http://www.utdallas.edu/calendar>) and in the Academic Calendar (<http://www.utdallas.edu/academiccalendar>). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or other instructor cannot drop or withdraw any student unless there is an administrative drop such as the following:

- Have not met the prerequisites for a specific course
- Have not satisfied the academic probationary requirements resulting in suspension
- Judicial affairs request
- Have not made appropriate tuition and fee payments
- Enrollment is in violation of academic policy
- Was not admitted for the term in which they registered

It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

Student Grievance Procedures

Procedures for student grievances are found in university policy UTDSP5005 (<http://policy.utdallas.edu/utdsp5005>). In attempting to resolve any student grievance regarding disputes over grades, application of degree plan, graduation/degree program requirements, and thesis/and dissertation committee, adviser actions and/or decisions, evaluations, and/or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originated.

Incomplete Grade Policy

As per university policy, incomplete grades may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of 'I') must be resolved completed within the time period specified by the instructor, not to exceed eight (8) weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol 'I' may be converted into a letter grade (A through F). If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

Access Ability Services

It is the policy and practice of The University of Texas at Dallas to make reasonable disability-related accommodations and/or services for students with documented disabilities. However, written notification from the Office of Student Access Ability (OSA) is required (see <http://www.utdallas.edu/studentaccess>). If you are eligible to receive disability-related accommodations and/or services and to ensure accommodations will be in place when the academic semester begins, students are encouraged to submit documentation four to six weeks in advance. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student Access Ability for a confidential discussion.

The Office of Student Access Ability provides:

- Academic accommodations for eligible students with a documented permanent physical, mental or sensory disability
- Facilitation of non-academic and environmental accommodations and services
- Resources and referral information, and advocacy support as necessary and appropriate.

OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities, including examinations and travel time for the observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, of the *Texas Tax Code*.

Students are encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

Excused students will be allowed to take missed exams or complete assignments within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the President of UT Dallas or from the President's designee. The chief executive officer or designee must take into account the legislative intent of *Texas Education Code 51.911(b)*, and the student and instructor will abide by the decision of the chief executive officer or designee.

Resources to Help You Succeed

The Office of Student Success operates the Student Success Center (SSC, <http://www.utdallas.edu/studentssuccess>), which offers assistance to students in the areas of writing, mathematics, communication, multiple science fields, reading, study skills, and other academic disciplines. These services are available through individual and small group appointments, workshops, short courses, and a variety of online and instructional technologies. All students enrolled at UT Dallas are eligible for these services.

The **Math Lab** gives short-term and semester long support for a variety of introductory and advanced mathematics courses. Students may drop in to visit with a math tutor on a regular basis. Comet card is required.

The **Writing Center** offers a collaborative learning environment for one-to-one and small group assistance with general and advanced writing assignments and overall writing skills. Scheduling an appointment is strongly recommended, but walk in appointments are possible if a tutor is available.

The **Peer Tutoring** program offers free tutoring assistance in multiple locations for many of the historically challenging undergraduate subjects at UT Dallas. Tutoring sessions, offered every weekday on a drop-in basis, are one-on-one or in a small group format. The sessions are designed to meet students' individual questions and needs related to course/subject concepts. All peer tutors are current UT Dallas students who made an A- or better in the course and have a strong faculty/staff recommendation. Students should check the Student Success Center website each semester for subject offerings and session times.

The **Peer-Led Team Learning (PLTL)** program provides an active, engaged learning experience for students who meet in small groups once a week with a Peer Leader who helps guide them through potentially difficult gateway course. Students that attend sessions regularly typically earn a half to a whole letter grade higher than students that do not participate in the PLTL program.

Supplemental Instruction (SI) provides free, peer-facilitated weekly study sessions for students taking historically difficult courses. SI sessions encourage active, collaborative learning based on critical thinking and transferable study skills. SI leaders attend lectures, take notes, and read assigned material just like the enrolled students. Students should check the SSC website for subject and session times.

The **Communication Lab (CommLab)** offers one-on-one and group consultations where you will gain practical feedback for improving oral and group presentations.

Success Coaches are available for individual student appointments to discuss study skills, time management, note taking, test taking and preparation, and other success strategies.

The Student Success Center's main office is located in the McDermott Library Building and can be contacted by calling 972-883-6707 or by sending an email to ssc@utdallas.edu.

These descriptions and timelines are subject to change at the discretion of the Instructor.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to: <http://go.utdallas.edu/syllbus-policies> for these policies.

These descriptions and timelines are subject to change at the discretion of the Professor. The views expressed by the instructor are those of the instructor and do not reflect the official positions of the Federal Deposit Insurance Corporation.