Syllabus for Finance 4331

**Finance Modeling**

**Fall, 2025**

**Instructor:** Dr. Robert J. Ritchey

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Office Hours: MWF 12:00 – 12:50 and by appointment. Occasionally I will not be able to keep these office hours. Feel free to contact me outside these times at the above number or by email. When corresponding by email be sure to include your 3-digit class number in the subject field.

**Course Website:** [**http://rritchey.ba.ttu.edu/Excel%20Boot%20Camp/**](http://rritchey.ba.ttu.edu/Excel%20Boot%20Camp/)

**Class Times:**  FIN 4331-**001** 8:00 am - 8:50 am MWF

FIN 4331-**002** 9:00 am - 9:50 am MWF

FIN 4331-**003** 10:00 am - 10:50 am MWF

FIN 4331-**004** 11:00 am - 11:50 am MWF

Evening Exams in Room **105** (times listed subject to change):

All Sections: 7:00 pm - 10:00 pm M, SEP 8

All Sections: 7:00 pm - 10:00 pm M, SEP 22

All Sections: 7:00 pm - 10:00 pm M, OCT 13

All Sections: 7:00 pm - 10:00 pm M, NOV 24

**Mediasite Recordings**

Lectures for each section will cover very similar material.

Lecture recordings from section 002 will normally be available at [https://rawlscollege.mediasite.com/Mediasite/Channel/robert-ritchey](https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Frawlscollege.mediasite.com%2FMediasite%2FChannel%2Frobert-ritchey&data=05%7C02%7CR.Ritchey%40ttu.edu%7Ca81942797d824ae2ec4108dde66683a7%7C178a51bf8b2049ffb65556245d5c173c%7C0%7C0%7C638920050144841372%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=arjZP8zX0tXrwjEFduhAZxQP%2B2XQX4mkICOfJ1FDb6s%3D&reserved=0)

Click the triangle next to **Home** on that page and then to the current semester and FIN 4331.

**Course Resources** **Optional** **Text:** *Financial Modeling,* 4th or 5th edition, Simon Benninga, MIT Press. We will cover selected chapters and analyses using this book containing a multitude of spreadsheet examples. The completely optional book provides a good starting point for building more sophisticated spreadsheets in the workplace.

**Laptop Computer**. Class attendance requires that you bring a laptop to each class. You will also need it to complete graded quizzes, tests, and assignments. The laptop must be configured to run **Microsoft Office 365 in the Windows operating system.** This software may be downloaded for free as a TTU student at[**https://eraider.ttu.edu/**](https://eraider.ttu.edu/)***. Be sure your Office software is the TTU version and up to date. Versions prior to 2024 may not have features necessary for this course.*** Your laptop must accept a standard **USB-A flash drive.**

Notice for Mac users: the Windows version of Excel in this course is required and sanctioned by Rawls College. The use of Mac/Apple laptops in this class is not recommended. If you have a Mac and want to use it in this course for exams and attendance credit you will need to install a Windows operating system on it as well as a current version of Windows Excel. Boot Camp may be an option for installing the Windows OS (see <https://support.apple.com/en-us/102622>. To help accomplish this, some technical assistance is available through the University help desk by calling 742-help. Note also that web-based solutions in which Excel resides on a server (and not on your computer) will not be allowed on exams since your internet connection must be disabled.

Exams and quizzes must be completed using Windows Excel to be acceptable for grading. Lectures will demonstrate Excel commands and keystrokes using only the Windows version. The Windows version of Excel is required as exam spreadsheets contain macros that do not work with Mac Excel, some Mac commands may be performed differently or in some cases may be unavailable, shortcut keys are different for Mac Excel, and, most importantly, the industry standard is the Windows version. **To receive full attendance credit, you must bring a laptop running Windows Excel to each class.**

**Class Number**

At the start of the semester, you will be given a unique “**class #**”. This number will range from 001 to 999. Remember this number as you will use it throughout the semester to identify yourself on tests, quizzes, assignments, and attendance. If you use the wrong class # number when submitting an assignment or test you will receive a grade deduction.

**Course Objectives (Knowledge and Skills Outcomes):**

**Course catalogue description :**

**FIN 4331. Finance Modeling (3)**. Prerequisites: C or better in FIN 3322 and 3324. Exploration of Excel models for decision making in investments and financial management.

Finance Modeling covers standard financial models in the areas of corporate finance, investments and financial management including financial mathematics, financial statements, valuation of stocks, bonds and options, cost of capital, capital structure, asset pricing models and portfolio analysis. While Excel is often not the best tool for high-level, industrial-strength calculations, it is an excellent tool for understanding the computational intricacies involved in financial modeling. It is often the case that the fullest understanding of the models comes through calculations and Excel is one of the best tools available for this. Further, job-search websites clearly show the ability to use Excel as one of the most important skills in the workplace today.

After completing the course students will be able to:

* **Markedly improve speed** in building Excel spreadsheets to model:
  + the present value of various cash flow streams, including uneven streams, annuities and perpetuities
  + pro forma financial statements including the balance sheet and income statement
  + the value of stocks, bonds, and contingent claim assets (options)
  + a firm’s component and average cost of capital
  + the impact of operating and financial leverage on optimal capital structure
  + the lease-purchase decision
  + random variables and simulation of financial models
* Use the following capabilities of Excel to expedite building financial models:
  + Shortcut keys to quickly access menu items
  + Absolute/relative cell addresses to build & quickly copy formulas
  + Conditional formatting
  + Built in financial functions
  + Array functions
  + What-if analysis
  + Data Tables
  + Solver (constrained optimization)
  + Keystroke macros
  + User defined functions
  + Rand ( ) and If ( ) functions
  + Text functions

**Course Grading:** Class attendance is important to success in this course. If you miss a class, please watch the Mediasite video (see above link) and/or arrange with a classmate to get the announcements and lecture notes you miss.

**If you have a time conflict with a scheduled exam or quiz because of official University business or other acceptable reason, you must notify your instructor by email prior to the end of the first calendar week of the semester to arrange for a makeup. Requests for a makeup after this date, if granted, will result in a minimum one letter grade reduction for that grading element. The first and last page of this syllabus show test dates.**

Your final letter grade for this course will be based on exams, quizzes, assignments, and attendance. Tentative weights for each of these elements are given below. Tests will require you to have a computer running a Windows operating system and Windows Excel. Be sure to boot up your laptop before class starts to make sure updates are complete and not tie up your computer during the test. Bring a charger in case your battery drains before you can complete the test. **Your computer must have the ability to read and save files on a USB-A thumb drive.**

Each assignment may consist of a quiz and/or spreadsheet project. The final weight of each individual assignment in your overall course grade will be determined at the end of the course. Tentative weights are given below and in the Grade Calculator workbook on the course website.

**ATTENDANCE**. Attendance is essential for success in this course. You are **allowed up to six unexcused absences during the semester**. These absences are intended for unavoidable situations such as illness, medical appointments or personal obligations. These six absences do **not** include missed classes due to official University business/athletics, student association trips, religious holidays, and military obligations, which may be excused provided you do the following:

* Complete and **print** the *Excuse.xlsx* workbook, one for each missed class. Do not email it.
* Give this printed copy stapled to a 1-2-page **printed** lecture summary of the missed lecture to your instructor on the first day back to class. Do not email them.

Arriving late or leaving early without prior approval will count as an absence. If you exceed the six allowed unexcused absences, your final course average will be reduced by 2% per additional absence.

Attendance will normally be taken with TopHat. Use your laptop to login to each class and immediately verify that your attendance was recorded. If it is not recorded let your instructor know immediately. **If you sign in to TopHat you agree to stay for the entire class. If you must leave early for an important unanticipated reason, email your instructor before or during class stating that you need to leave early.** After class email your instructor with an explanation as soon as possible. Failure to notify your instructor as indicated above will result in a 4-class loss of attendance penalty.

**During class you are expected to be “on task” using your computer exclusively for applications directly related to that lecture.** You may lose attendance credit for using your computer or cell phone for tasks other than those directly related to that day’s lecture.

**Tentative dates & weights for the graded course elements:**

**A close up of a document

AI-generated content may be incorrect.**

If your course average is at least 90% your course letter grade is “A.” For 80-89.99% your grade is “B.” For 70-79.99% your grade is “C.” For 60-69.99 your grade is “D.” For less than 60% your grade is “F.”

Since the number of assignments, exams and quizzes is tentative and as the semester evolves there may be fewer or more than planned, the weights shown above may be significantly revised. In that case your letter grade for the course will be determined by an adjusted algorithm to be explained near the end of the semester.

**Makeup**

**Work:**

**Missed Exam or Quiz:** If you miss a test or quiz **with** an excused absence, you must email your instructor 2-3 days before the test *in addition to any earlier emails* to request a makeup exam or quiz. Be sure to state the reason for missing and include a schedule of times you are available to do a makeup, if required.

**Testing:**

It is important that you arrive on time for all tests to facilitate seating. If you are unable to take any of these at the times listed, *you must notify your instructor prior to the end of the first week of the semester to arrange for a makeup*. Due to unanticipated circumstances test dates may be amended later during the semester. Students allocated extra time on tests by SDS may not receive extra time in this course as speed is an academic standard.

**Assignments:**

You will be completing and submitting spreadsheet assignments for grading. Each graded take-home assignment should be treated as a take-home exam to be completed by you alone. You must complete each assignment without assistance**. Use of AI,** **collaboration or collusion with others in completing an assignment is strictly prohibited and if violated may result in a grade of “zero” for that assignment as well as for the entire assignment portion of your grade. Any form of copying part of another person’s spreadsheet is prohibited.** Remember though that you *are* permitted to use any part of spreadsheets posted to the web by your instructor during the semester or to access *generic* instructions for using Excel commands from the web or references such as *Lynda*. The assignment grades you receive are tentative and may be amended later in the semester if it is determined that you violated the academic integrity policy or if you did not follow instructions related to using AI, collaboration or copying.

Note that the policy on collaboration or collusion does NOT apply to preparation/study for tests. You **are** permitted and advised to work in groups to share and review course notes and items that were covered in class. As an example, you **may** share with others or receive instructions on how to use the Data Table command, Solver, conditional formatting, functions, Data Validation, etc. in Excel if the example(s) used is (are) NOT the one in the graded assignment. Only after the assignment is due and submitted is it okay to get together to discuss the assignment solution. Examples of collaboration (strictly disallowed): **After** an assignment **to be turned in** is posted to the web (1) you arrive a few minutes early to class and ask another student about what they have done on the assignment, (2) during lunch you get together with classmates to discuss part of the assignment, (3) you help another student by showing them how to enter a formula on an assignment worksheet (4) you find a copy of the solution to an assignment on the web and use parts of it to complete your workbook.

**Course Schedule (Tentative dates and weights for assignments are in *Grade Calculator.xlsx* on the course website):**

**Part I**

Excel basics

User-defined functions

Excel advanced tools

Financial math

**Test Monday Evening, 7-10 PM, SEP 8**

Room 105.

**Test Monday Evening, 7-10 PM, SEP 22**

Room 105.

**Part II**

Financial statement models

Valuation models

Constrained optimization techniques

**Exam I Monday Evening, 7-10 PM, OCT 13**

Room 105. This exam covers material presented to date.

**Part III**

Capital budgeting models

Cost of capital models

Capital structure models

**Part IV**

Random variables & simulation

Comprehensive model of firm value

Option pricing models

Keystroke macros

**Exam II Monday Evening, 7-10 PM, NOV 24**

Room 105. This exam covers all material presented to date.

**TTU Policies:**

Texas Tech Policies Concerning Academic Honesty, Special Accommodations for Students with Disabilities, Student Absences for Observance of Religious Holy Days, and Accommodations for Pregnant Students. may be found at: <https://www.depts.ttu.edu/tlpdc/RequiredSyllabusStatements.php>

**ADA STATEMENT:**

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in Weeks Hall or call 806-742-2405.

**ACADEMIC INTEGRITY STATEMENT:**

Academic integrity is taking responsibility for one’s own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University (“University”) Quality Enhancement Plan, Academic Integrity Task Force, 2010].

**RELIGIOUS HOLY DAY STATEMENT:**

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

**STATEMENT OF ACCOMMODATION FOR PREGNANT STUDENTS**

To support the academic success of pregnant and parenting students and students with pregnancy related conditions, the University offers reasonable modifications based on the student’s particular needs. Any student who is pregnant or parenting a child up to age 18 or has conditions related to pregnancy may contact Alex Faris, the Texas Tech University designated Pregnancy and Parenting Liaison, to discuss support available through the University. The Liaison can be reached by emailing [alfaris@ttu.edu](mailto:alfaris@ttu.edu?subject=). Should a student communicate with the instructor that they are pregnant or have a pregnancy related condition or may need additional resources related to pregnancy or parenting, the instructor will communicate that student’s information to the Title IX Coordinator, who will work with the student and others, as needed, to ensure equal access to the University’s education program or activity.

For more information regarding supportive measures, please contact pregnancy & parenting liaison Alex Faris ([alfaris@ttu.edu](mailto:alfaris@ttu.edu?subject=) | 806.834.3420) or visit [Pregnancy & Parenting](https://www.depts.ttu.edu/titleix/PregnancyandParenting/). You can also [submit a Pregnancy & Parenting Support Form](https://cm.maxient.com/reportingform.php?TexasTechUniv&layout_id=4) to request assistance.