

Course Title: Financial Modeling Term and Year:

Course and Section Number: FIN 5823 Time and Place: Asynchronous, Online

Number of Credit Hours: 3

Instructor: TBD Office Location/Hours: TBD

Office Phone: TBD Email: TBD

Course Description:

In this course, students will build robust financial forecasts and models, learn tips and tools, analyze the results, and learn how to communicate key data to decision makers in your business organizations. Students will learn how to build the financial model, how to generate a financial forecast and ultimately how to drive business. Students will create more powerful and accurate forecasting models that enhance business decision making as used in investment banking and financial analysis.

Learning Outcomes: Upon completion of this course, the student should be able to:

1. Interpret descriptive statistics.

- 2. Build an accurate and efficient financial model.
- 3. Evaluate projects and companies using financial modeling.
- 4. Identify risk using scenario, sensitivity, and simulation analysis.
- 5. Present the outcomes of a financial model.

Prerequisites: Must be admitted to the MBA Program

Required Textbook: None

Other Materials: Microsoft Office Excel (or equivalent)

Course Requirements:

Attendance/Participation: All students are expected to log in to their courses regularly throughout the week to receive instruction, materials, and updates from the instructor. It is your responsibility to check in and submit your assignments, complete your discussion board postings, and finish quizzes and exams by the due dates.

If you do not participate in the course, you will be counted absent. Simply logging in is not enough; you must submit/complete an assignment, post to a discussion board, or other similar assignment

tasks to avoid being counted absent. Instructors are required to submit attendance the Monday following each week of class.

This attendance is reported to the Financial Aid Department and may result in the loss of any financial aid refund you are expecting if you have not been participating in your courses. In addition, you will be administratively dropped from the course if you are reported absent a total of three weeks.

Completing the following actions will **not count** as present for this class:

1. Logging into Moodle 2. Reviewing Course Materials 3. Any email or phone contact with the instructor 4. Submitting work early. One assignment must be submitted during each week to be counted present.

Grading/Evaluation:

Grade Distribution: The course grade will be based on the following assignment types:

Discussion Forum (25 points each)	200 points
Assignments (1 @ 25 points, 2 @ 50 points, 1 @ 75 points)	200 points
Financial Statement Analysis (2 weeks)	125 points
Monthly Budgeting (2 weeks)	100 points
Course Project (5 weeks)	<u>375 points</u>
Total Points	.1,000 points

Trine Graduate Grading Scale:

Grade	Percentage	Quality Points	Meaning of Grade
Α	93-100	4.0	Excellent
B+	86-92	3.5	Very Good
В	81-85	3.0	Good
C+	75-80	2.5	Above Average
С	70-74	2.0	Average (lowest passing grade)
F	00-69	0.0	Failure
I	Incomplete	Not figured into GPA	
IP	In Progress (grade deferred)	Not figured into GPA	
W	Withdrawal	Withdrawal before completion of 80% of semester	

WP	Withdrawal	Withdrawal after completion of 80% of semester issued only under special circumstances and with approval of the department	
		chair/director	

Late Policy:

There is a 20% penalty for each day an assignment is past due, up to 2 days. After 2 days, the assignment will not be accepted. Late discussion forum posts will not be accepted for credit. No assignments will be accepted for credit after the last day of the course

Other Policies:

Academic Misconduct:

The University prohibits all forms of academic misconduct. Academic misconduct refers to dishonesty in examinations (cheating), presenting the ideas or the writing of someone else as one's own (plagiarism) or knowingly furnishing false information to the University by forgery, alteration, or misuse of University documents, records, or identification. Academic dishonesty includes, but is not limited to, the following examples: permitting another student to plagiarize or cheat from one's own work, submitting an academic exercise (written work, printing, design, computer program) that has been prepared totally or in part by another, acquiring improper knowledge of the contents of an exam, using unauthorized material during an exam, submitting the same paper in two different courses without knowledge and consent of professors, or submitting a forged grade change slip or computer tampering. The faculty member has the authority to grant a failing grade in cases of academic misconduct as well as referring the case to Student Life.

Plagiarism:

You are expected to submit your own work and to identify any portion of work that has been borrowed from others in any form. An ignorant act of plagiarism on final versions and minor projects, such as attributing or citing inadequately, will be considered a failure to master an essential course skill and will result in an F for that assignment. A deliberate act of plagiarism, such as having someone else do your work, or submitting someone else's work as your own (e.g., from the Internet, fraternity file, etc., including homework and in-class exercises), will at least result in an F for that assignment and could result in an F for the course.

Artificial Intelligence (AI) is prohibited: All work submitted by students in this course must be generated by the student. Students may not have another person or entity contribute to an assignment for them, which includes using AI. Students may not incorporate any part of an AI-generated response in an assignment, use AI to formulate arguments, use AI to generate ideas for an assignment, or submit work to an AI platform for improvement. Using an AI tool to generate content may qualify as academic misconduct in this course.

OR

Artificial Intelligence (AI) is allowed: Students may use AI tools on instructor-identified assignments in this course. To adhere to our scholarly values, students must cite any AI-

generated material that informed their work. Using an AI tool without proper attribution may qualify as academic misconduct in this course. It is the responsibility of the student to verify the accuracy, reliability, and ethical implications of AI-generated content.

Electronic Devices:

Use of electronic devices including smart watches and cell phones is prohibited during exams or quizzes unless directly allowed by the instructor.

Additional Information: Additional Information:

Even though the course project doesn't officially start until Week 4, you are strongly encouraged to review the Course Project, and review the other documents associated with this project during Week 1. Starting early on the project is advised. Also, please reach out to your instructor if you have questions about any element of the project. They will help you get back on track.

Course Mapping:

Week One: LO2				
Learning Activities and Materials	Assessments			
Read: 1. Introduction to Financial Analysis (LO2) (18 pages) 2. Financial Modeling Guidelines (LO2) (pages 3 – 29 only) Watch: How to find Interest & Principal payments on a Loan in Excel (LO2) (5:10)	Discussion Forum: 1. Introduce yourself to your Peer Review Group, talk about your family, your job, and the reason you are pursing this degree. Describe your current job and your dream job. Also, name at least two skills that you hope to learn during this course. (LO2) Assessment: 1. Crossword Vocabulary Reading & Listening Quiz over the assigned learning activities and materials. (LO2) Create a loan payment calculator in MS Excel by following step-by-step instructions. (LO2)			
Week Two: LO1-2				
Learning Activities and Materials	Assessments			
 Read: Financial Statement Analysis: The Balance Sheet (LO2) (10 pages) Financial Statement Analysis: The Income Statement (LO2) (38 pages) Financial Statements and Finance (LO2) (13 pages) Ratio Analysis and Forecasting (LO2) (27 pages) Descriptive Statistics in Excel (LO1) (4 pages) 	Discussion Forum: 1. For this discussion you will describe a current problem you are facing at work and how you might design a spreadsheet model to solve it. You will create a sketch of the model, or create an outline in Excel. You can keep it very simple, but be sure to capture the essence of the problem and solution. (LO2) Assessment:			
Watch:	ASSESSITION.			

- 1. Three Statement Model (LO2) (6:21)
 How to link the three financial statements in
 Excel (LO2) (41:42)
- Financial Statement Analysis: Part 1

 Analyze the financial statements of a publicly traded company. (LO2)
 Calculate and interpret descriptive statistics in Excel. (LO1)

Week Three: LO3-4

Learning Activities and Materials

Read:

- 1. Principles of Accounting Chp. 17 (LO3)
- 2. Presenting Well (LO4) (2 pages)

Watch:

- 1. Preparing a Sales Budget (LO3) (2:07)
- 2. Preparing a Production Budget (LO3) (3:43)
- 3. Preparing a Direct Materials Budget (LO3) (3:31)
- 4. Preparing a Direct Labor Budget (LO3) (2:35)
- 5. Preparing a Manufacturing Overhead Budget (LO3) (2:20)
- 6. Preparing a Selling and Administrative Expense Budget (LO3) 2:40)
- 7. Preparing a Cash Budget (LO3) (3:31)
- 8. Preparing a Budgeted Income Statement (LO3) (2:02)
- 9. Our Buggy Moral Code (LO3) (LO4) (16:04)

Assessments

Discussion Forum:

 For this discussion you will describe a current problem you are facing at work (different from Week 2) and create an infographic that illustrates the solution. You can keep it very simple, but be sure to capture the essence of the problem and solution. (LO3)

Assessment:

- Financial Statement Analysis: Part 2

 Present project to Peer Review
 Group (LO4)
- 2. Monthly Budgeting: Part 1 Create an operating budget for the first quarter of a new business. (LO3)

Week Four: LO2-4

Learning Activities and Materials

Read:

- Scenario Analysis vs. Sensitivity Analysis (LO4) (3 pages)
- Comparison of Financial Models for Stock Price Prediction (LO2) (LO3) (17 pages)

Watch:

 How to Estimate Tasks & Dependencies – <u>Project Management Training</u> (LO2) (LO3) (4:58)

Assessments

Discussion:

 For this discussion you will describe a new or different problem you are facing at work and create an influence chart that illustrates the problem and solution. You can keep it very simple, but be sure to capture the essence of the problem and solution. (LO2) (LO3)

Assessment:

Monthly Budgeting: Part 2 – Use scenario, sensitivity, and simulation analysis to better understand the risk faced by the company. (LO2) (LO4) Course Project: Part 1 – Review the requirements of the course project and create a work plan to guide your time investment each week. ((LO2) (LO3)

Week Five: LO2-3

Learning Activities and Materials

Assessments

Read:

- The Time Value of Money: Simple Present and - Future Values (LO2) (LO3) (39 pages)
- 2. The Time Value of Money: Annuities, Perpetuities, and Mortgages (LO2) (LO3) (50 pages)
- 3. How to Make a Concept Map (LO2) (LO3) (3 pages)

Watch:

1. Tutorial: Using Influence Diagrams (LO2) (LO3) 3:53

Why You Need to Know the Time Value of Money Formula (Excel NPV) ((LO2) (LO3) (13:48)

Discussion:

1. For this discussion you will describe a new or different problem you are facing at work create PowerPoint slides detailing the problem and how to create a financial model for the solution. You will present your problem and solution to your Peer Review Group. You can keep it very simple, but be sure to capture the essence of the problem and solution. (LO2) (LO3)

Assessment:

1. Course Project: Part 2 – Create a concept map showing the various elements of the retirement planning model vou will create next week. (LO2) (LO3)

Describe simple present value, future value, annuities, perpetuities, and mortgages, and give an example of how to solve each type of problem. (LO2) (LO3)

Week Six: LO2-3

Learning Activities and Materials

Read:

1. A Mixed Review of Cash Flow Modeling: Potential of Blockchain for Modular Construction (LO2) (LO3) (28 pages)

Watch:

1. 40% of Americans Say THIS Is How Much Money You Need To Retire – Are They Wrong? (LO2) (LO3) (12:26)

Watch: Why I Would Never Take Social Security at Age 65 by Medicare (LO2) (LO3) (15:04)

Assessments

Discussion:

1. For this discussion you will describe a current problem you are facing at work (different from the previous weeks) and how you might design a spreadsheet model to solve it. You will create a sketch of the model, or create an outline in Excel. You can keep it very simple, but be sure to capture the essence of the problem and solution. (LO2) (LO3)

Assessment:

Course Project: Part 3 - Create a financial model in Excel that will answer the questions listed in the retirement planning case. (LO2) (LO3)

Week Seven: LO2-3

Learning Activities and Materials

Read:

1. Financial Modeling of the Influence of Factors on the Mortgage Rate in Developed Countries (LO2) (LO3) (5 pages)

Watch:

Assessments

Discussion:

1. For this discussion you will describe a current problem at work and choose what medium you will use to describe the problem and solution. You can choose from Excel spreadsheet, Infographic, Influence

 The Best Way to Figure Out How Much Money You Need For Retirement (LO2) (LO3) (12:01)

<u>Financial Education – The Powerful Equalizer</u> (LO2) (LO3) (14:46)

Chart, or screen capture video. (LO2) (LO3)

Assessment:

Course Project: Part 4 – Using the Retirement Planning Model that you created in Excel, write 4-to-5-page paper answering the questions stated in the retirement case study. (LO2) (LO3)

Group. (LO2) (LO3) (LO4) (LO5)

Week Eight: LO2-5

Learning Activities and Materials Assessments Read: Discussion: 1. Presenting Well (LO5) (2 pages) 1. For this discussion, you will reflect on 2. Scenario Analysis vs. Sensitivity Analysis the discussions that occurred during the previous weeks and describe (LO4) (3 pages) what you learned about problem solving, and which medium you Watch: prefer and why. This discussion will 3. Our Buggy Moral Code (LO2) (LO3) (LO5) occur with your Peer Review Group. (16:04)(LO2) (LO3) Assessment: Course Project: Part 5 – Present your course project to your Peer Review

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