COLORADO STATE UNIVERSITY GLOBAL

# FIN500: Principles of Finance

**Credit Hours**: 3

**Contact Hours:** This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

**Faculty Information:** Faculty contact information and office hours can be found on the faculty profile page.

## Course Description and Outcomes

**Course Description:**

Understand the principles and theories of finance to analyze statements and fiscal information for effective decision making in today's competitive environment.

**Course Overview:**

This course introduces students to basic financial concepts. Topics include shareholder value, value-based financial management, financial statement analysis, and capital budgeting risk/return on financing through investment activities. Students will develop financial-analysis capabilities leading to effective financial management decisions within an organization and for personal financial decision-making.

**Course Learning Outcomes:**

1. Evaluate corporate financial performance by conducting financial statement and ratio analysis.
2. Critique ethical issues that domestic and multinational corporations face.
3. Interpret the time-value of money with working capital and credit-management activities related to organizational performance.
4. Evaluate investment alternatives for capital expenditures and budgeting.
5. Assess the primary elements of the corporate investment decision, based on the evaluation of risk, return, and opportunity costs.

## Participation & Attendance

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

## Course Materials

**Required:**

Brealey, R., Myers, S., & Allen, F. (2017). *Principles of corporate finance* (12th ed.) New York; McGraw Hill Education Group. ISBN: 9781259144387

***NOTE:*** *All non-textbook required readings and materials necessary to complete assignments, discussions, and/or supplemental or required exercises are provided within the course itself. Please read through each course module carefully.*

## Course Schedule

### Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and peer responses posted by Sunday at 11:59 p.m. MT. Late posts may not be awarded points.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.
- **Live Classroom:** Although participation is not required, Live Classroom sessions are held during Week 3 and Weeks 6. There are two total sessions.

## Weekly Reading and Assignment Details

**Module 1**

**Required Readings**

- Chapter 1 in *Introduction to corporate finance*
- Zoni, L., & Pippo, F. (2017). CFO and finance function: What matters in value creation. *Journal of Accounting & Organizational Change*, 13(2), 216-238.

**Discussion (25 points)**

**Portfolio Reminder (0 points)**

A final Portfolio Project is due at the end of the course. The Portfolio Project is a robust project that you should work on while you progress through this course.

You will choose only one of the two options to complete. Do not do both assignments. Read both Portfolio Project descriptions in the Module 8 folder. Review the Portfolio Project Rubric and then choose which option you will complete for your final Portfolio Project.

You're required to submit work on your portfolio in Week 3 and in Week 5, with the final Portfolio Project due at the end of Week 8.

This week, you should review the Portfolio Project grading rubric and begin planning your time.

**Module 2**

**Required Readings**

- Chapters 2 and 5 in *Principles of corporate finance*
- Goodman, T. H., Neamtiu, M., Shroff, N., & White, H. D. (2014). Management Forecast Quality and Capital Investment Decisions. *Accounting Review*, 89(1), 331–365.
- Patrick, M., & French, N. (2016). The internal rate of return (IRR): Projections, benchmarks and pitfalls. *Journal of Property Investment & Finance*, 34(6), 664-669.

**Discussion (25 points)**

**Critical Thinking (90 points)**

Important! Read First:

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Complete the following questions using Microsoft Word or Excel, as appropriate. Review the rubric to confirm you are meeting the assignment requirements.

**Option 1:**

**Question 1: Future and Present Values**

1. If you invest $100 at an interest rate of 15%, how much will you have at the end of eight years?
2. The cost of an automobile is $10,000. If the interest rate is 5%, how much would you have to set aside now to provide this sum in five years?
3. If the cost of capital is 9%, what is the PV of $374 paid in year 9?
4. If the PV of $10 a year for three years is $24.65, what is the three-year annuity factor?

**Question 2: Compounding**

1. You are quoted an interest rate of 6% on an investment of $10 million. What is the value of your investment after four years if interest is compounded:
   - Annually?
   - Monthly?
   - Continuously?
2. Which would you prefer? (Work out the value of each investment after 1, 5, and 20 years)
   - An investment paying interest of 12% compounded annually.
   - An investment paying interest of 11.7% compounded semiannually.
   - An investment paying 11.5% compounded continuously.

**Question 3: IRR Rule**

Mr. Clotz, the president of Mega Enterprises, has to make a choice between two possible investments:

| Project | C0 | C1 | C2 | IRR (%) |
|---|---|---|---|---|
| A | -400 | +250 | +300 | 23 |
| B | -200 | +140 | +179 | 36 |

The opportunity cost of capital is 9%. Mr. Clotz is tempted to take B, which has the higher IRR.

1. Explain to Mr. Clotz why this is not the correct procedure.
2. Show him how to adapt the IRR rule to choose the best project.
3. Show him that this project also has the higher NPV.

**Question 4: Capital Rationing**

Consider the following capital rationing problem:

| Project | C0 | C1 | C2 | NPV |
|---|---|---|---|---|
| W | -10,000 | -10,000 | 0 | +6,700 |
| X | 0 | -20,000 | +5,000 | +9,000 |
| Y | -10,000 | +5,000 | +5,000 | +0 |
| Z | -15,000 | +5,000 | +4,000 | -1,500 |
| **Financing Available** | 20,000 | 20,000 | 20,000 | |

Set up this problem as a linear program and solve it.

Note: You can allow partial investments, that is, " $0 \leq x \leq 1$." Calculate and interpret the shadow prices on the capital constraints.

Your paper should be from 600-900 words (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

**<u>Option 2:</u>**

**Question 1: Present Values**

Your firm's geologists have discovered a small oil field in New York's Westchester County. The field is forecasted to produce a cash flow of C1 = $2 million in the first year. You estimate that you could earn an expected return of *r* = 12% from investing in stocks with a similar degree of risk to your oil field.

Therefore, 12% is the opportunity cost of capital. What is the present value? The answer, of course, depends on what happens to the cash flows after the first year.

Calculate present value for the following cases:

1. The cash flows are forecasted to continue forever, with no expected growth or decline.
2. The cash flows are forecasted to continue for 20 years only, with no expected growth or decline during that period.
3. The cash flows are forecasted to continue forever, increasing by 3% per year because of inflation.
4. The cash flows are forecasted to continue for 20 years only, increasing by 3% per year because of inflation.

**Question 2: Continuous Compounding**

How much will you have at the end of 20 years if you invest $100 today at 15% annually compounded? How much will you have if you invest at 15% continuously compounded?

**Question 3: IRR Rule**

**Cash Flows ($ thousands)**

| Project | C0 | C1 | C2 | C3 |
|---|---|---|---|---|
| A | -100 | +60 | +60 | 0 |
| B | -100 | 0 | 0 | +140 |

1. Calculate the NPV of each project for discount rates of 0%, 10%, and 20%. Plot these on a graph with NPV on the vertical axis and discount rate on the horizontal axis.
2. What is the approximate IRR for each project?
3. In what circumstances should the company accept project A?
4. Calculate the NPV of the incremental investment ( B- A) for discount rates of 0%, 10%, and 20%. Plot these on your graph. Show that the circumstances in which you would accept A are also those in which the IRR on the incremental investment is less than the opportunity cost of capital.

**Question 4: Capital Rationing**

Suppose you have the following investment opportunities, but only $90,000 available for investment. Which projects should you take?

| Project | NPV | Investment |
|---|---|---|
| 1 | 5,000 | 10,000 |

| | | |
|---|---|---|
| 2 | 5,000 | 5,000 |
| 3 | 10,000 | 90,000 |
| 4 | 15,000 | 60,000 |
| 5 | 15,000 | 75,000 |
| 6 | 3,000 | 15,000 |

Your paper should be from 600-900 words (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

## Module 3

**Required Readings**

- Brooke, P., Docherty, P., Psaros, J., & Seamer, M. (2018). Internal Governance Does Matter to Equity Returns but Much More So During "Flights to Quality". *Journal of Applied Corporate Finance*, 30(1), 39-52.
- Chapters 7 and 9 in *Principles of Corporate Finance*

**Discussion (25 points)**

**Critical Thinking (90 points)**

**Important! Read First:**

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Answer the questions using Microsoft Word or Excel, as appropriate. Review the rubric to confirm you are meeting the assignment requirements.

Your paper should be 900-1,200 words (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

**Option 1:**

**Question 1: Portfolio Risk**

Golden Eagle invests 60% of their funds in stock I and the balance in stock J. The standard deviation of returns on I is 10%, and on J it is 20%. Calculate the variance of portfolio returns, assuming

1. The correlation between the returns is 1.0
2. The correlation is .5.
3. The correlation is 0.

**Question 2: Certainty Equivalents**

A project has the following forecasted cash flows:

**Cash Flows ($ Thousands)**

| C0 | C1 | C2 | C3 |
|---|---|---|---|
| -100 | +40 | +60 | +50 |

The estimated project beta is 1.5. The market return *rm* is 16%, and the risk-free rate *rf* is 7%.

1. Estimate the opportunity cost of capital and the project's PV (using the same rate to discount each cash flow).
2. What are the certainty-equivalent cash flows in each year?
3. What is the ratio of the certainty-equivalent cash flow to the expected cash flow in each year?
4. Explain why this ratio declines.

**Question 3: Measuring Risk**

The following table shows estimates of the risk of two well-known Canadian stocks:

| | Standard Deviation (%) | R2 | Beta | Standard Error of Beta |
|---|---|---|---|---|
| TDM | 13 | 0.49 | 0.83 | 0.11 |
| LLW | 21 | 0.01 | 0.21 | 0.25 |

1. What proportion of each stock's risk was market risk, and what proportion was specific risk?
2. What is the variance of TDM Bank? What is the specific variance?
3. What is the confidence interval on LLW's beta?
4. If the CAPM is correct, what is the expected return on TDM Bank? Assume a risk-free interest rate of 5% and an expected market return of 12%.
5. Suppose that next year the market provides a zero return. Knowing this, what return would you expect from TDM Bank?

**Question 4: Company Cost of Capital**

You are given the following information for GFF Financial:

Long-term debt outstanding: $300,000

Current yield to maturity (rdebt): 8%

Number of shares of common stock: 10,000

Price per share: $50

Book value per share: $25

Expected rate of return on stock (requity): 15%

Calculate GFF Financial's company cost of capital. Ignore taxes.

**Option 2: Cryptocurrency and Portfolio Risk**

Up until recently, companies have not considered the use of cryptocurrency in regards to their portfolio diversification. Outline how the cryptocurrency market has adapted to meet the needs of companies in their attempts to mitigate portfolio risk. In your outline, address the emergence of cryptocurrency derivatives and how this relates directly to corporate finance decisions. Be sure to discuss the specific cryptocurrencies companies may use and how they may affect portfolio risk.

**Portfolio Milestone (50 points)**

**Important! Read First**

Select one of the two Portfolio Project options listed in Module 8 for this Milestone Assignment. Do not do both option assignments. In keeping with your Portfolio Project option selection, choose one of the following two Portfolio Project Milestone assignments to complete and submit this week, and to subsequently include in your completed Portfolio Project that will be turned in as part of your Module 8 submission. Be sure to identify your assignment choice for this week in the title of your submission.

## Option #1: Exotic Foods, Inc., Capital Budgeting Case

Exotic Food Inc., a food processing company located in Herndon, VA, is considering adding a new division to produce fresh ginger juice. Following the ongoing TV buzz about significant health benefits derived from ginger consumption, the managers believe this drink will be a hit. However, the CEO questions the profitability of the venture given the high costs involved. To address his concerns, you have been asked to evaluate the project using four capital budgeting techniques (i.e., NPV, IRR, MIRR and Payback) and present your findings in a report.

For your Module 3 Portfolio Milestone and using the additional information to be found in Module 8 Portfolio Project, you are asked to complete questions 1. and 2. as follows:

1. What is the total investment amount at the start of the project (i.e., year zero cash flow)?
2. What is the depreciation amount for each year?
    - Create a depreciation schedule

You will include these answers in your completed final portfolio project.

**Option #2 Pilgrim Coffee, Inc.**

Pilgrim Coffee Inc. is a successful chain of coffee shops that offers handcrafted coffee and espresso drinks using outsourced coffee beans. In their quest to deliver the best cup of coffee around, top management has learned a lot about coffee beans from around the world and are considering the task of roasting their own coffee beans in house at their flagship cafe. They believe they can wholesale their roasted coffee beans to other coffee shops, both local and afar and offer their packaged beans to customers in-house as well use the beans for their own drink creations. The COO is worried about the potentially high costs involved and would like to use your finance knowledge to evaluate the new venture and address their concerns.

For your Module 3 Portfolio Milestone and using the additional information to be found in Module 8 Portfolio Project, you are asked to complete questions 1. and 2. as follows:

1. What is the total investment amount at the start of the project (i.e., year zero cash flow)?
2. Prepare a depreciation schedule to show the amount of depreciation for each year.
    - Create a depreciation schedule

You will include these answers in your completed final portfolio project.

## Module 4

**Required Readings**

- Chapters 10 and 11 in *Principles of Corporate Finance*

**Discussion (25 points)**

**Critical Thinking (90 points)**

**Important! Read First**

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Answer the questions using Microsoft Word or Excel, as appropriate. Review the rubric to confirm you are meeting the assignment requirements.

Your paper should be 300-600 words (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

**Option 1**

A manufacturer is considering two alternative machine replacements. Machine 1 costs $1 million with an expected life of 5-years and will generate after-tax cash flows of $350,000 a year. At the end of 5 years, the salvage value on Machine 1 is zero, but the company will be able to purchase another Machine 1 for a cost of $1.2 million. The replacement Machine 1 will generate after-tax cash flows of $375,000 a year for another 5 years. At that time its salvage value will also be zero. The manufacturer's second option is to buy Machine 2 at a cost of $1.5 million today. Machine 2 will produce after-tax cash flows of $400,000 a year for 10 years, and after 10 years it will have an after-tax salvage value of $100,000. The cost of capital for both machines is 12 percent.

1. What is the NPV for both machine 1 and for machine 2?
2. Which machine will have the highest NPV for the firm?
3. Please explain how the selection of the machine with the highest NPV will increase the value of the firm.
4. If the manufacturer chooses the machine that adds the most value to the firm, by how much will the company's value increase?

Summarize your results in a memo to your employer, letting them know what decision you are recommending and the reason for your recommendation.

Your paper should be 2-3 pages in length (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements (Links to an external site.). Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

**Option 2**

WC Development was a well-known real estate development company, whose owner worked long hours with the expectation that his staff would as well. So Bill was not surprised to receive a call from the boss just as Bill was about to leave for a long weekend.

The development company's success had been built on a remarkable instinct for a good site. The Owner would exclaim, "Location! Location! Location!" at some point in every planning meeting. Yet finance was not his strong suit. On this occasion he wanted Bill to go over the figures for a new $90 million outlet mall designed to intercept tourists heading into downtown from the airport. "First thing Monday will do just fine," he said as he handed Bill the file. "I'll be in away at my  house on the beach if you need me."

Bill's first task was to draw up a summary of the projected revenues and costs. The results are shown in the table below. Note that the mall's revenues would come from two sources: The company would charge retailers an annual rent for the space they occupied and, in addition, it would receive 5% of each store's gross sales.

Construction of the mall was likely to take three years. The construction costs could be depreciated straight-line over 15 years starting in year 3. As in the case of the company's other developments, the mall would be built to the highest specifications and would not need to be rebuilt until year 17. The land was expected to retain its value, but could not be depreciated for tax purposes.

Construction costs, revenues, operating and maintenance costs, and real estate taxes were all likely to rise in line with inflation, which was forecasted at 2% a year. The company's tax rate was 35% and the cost of capital was 9% in nominal terms.

Bill decided first to check that the project made financial sense. He then proposed to look at some of the things that might go wrong. His boss certainly had a nose for a good retail project, but he was not infallible. The Salem Project had been a disaster because store sales had turned out to be 40% below forecast. What if that happened here? Bill wondered just how far sales could fall short of forecast before the project would be underwater.

Inflation was another source of uncertainty. Some people were talking about a zero long-term inflation rate, but Bill also wondered what would happen if inflation jumped to, say, 10%.

A third concern was possible construction cost overruns and delays due to required zoning changes and environmental approvals. Bill had seen cases of 25% construction cost overruns and delays up to 12 months between purchase of the land and the start of construction. He decided that he should examine the effect that this scenario would have on the project's profitability.

**Years**

| | **0** | **1** | **2** | **3** | **4** | **5-17** |
|---|---|---|---|---|---|---|
| **Investment:** | | | | | | |
| Land | 30 | | | | | |
| Construction | 20 | 30 | 10 | | | |
| **Operations:** | | | | | | |
| Rentals | | | | 12 | 12 | 12 |
| Share of retail sales | | | | 24 | 24 | 24 |
| Operating and maintenance costs | 2 | 4 | 4 | 10 | 10 | 10 |
| Real estate taxes | 2 | 2 | 3 | 4 | 4 | 4 |

(Projected revenues and costs in real terms for the new tourist mall; figures in $ millions).

1. What is the project's NPV given the projections in the table?
2. Conduct a sensitivity and a scenario analysis of the project.
3. Summarize your results in a memo to the owner. What do these analyses reveal about the project's risks and potential value?

## Module 5

**Required Readings**

- Chapters 23 and 24 in *Principles of Corporate Finance*

- Goel, M. & Zemel, M. (2018). Switching to bonds when loans are scarce: Evidence from four U.S. crises. *Journal of Corporate Finance*, 52, 1-27.

**Discussion (25 points)**

**Critical Thinking (90 points)**

**Option 1**

**Question 1: Expected Yield**

You own a 5% bond maturing in two years and priced at 87%. Suppose that there is a 10% chance that at maturity the bond will default and you will receive only 40% of the promised payment. What is the bond's promised yield to maturity? What is its expected yield (i.e., the possible yields weighted by their probabilities)?

**Question 2: Default Probability**

The following table shows some financial data for two companies:

| | **A** | **B** |
|---|---|---|
| **Total assets** | $1,552.1 | $1,565.7 |
| **EBITDA** | -60 | 70 |
| **Net income + interest** | -80 | 24 |
| **Total liabilities** | 814.0 | 1537.1 |

a. Calculate the probability of default for the two companies.

b. Which company has the higher probability?

**Question 3: Bond Contracts**

Refer to the following information:

| | |
|---|---|
| Amount issued | $400 million |
| Offered | Issued at a price of 101.50% plus accrued interest (proceeds to company 101.300%) through First Boston Corporation. |
| Interest | 9.25% per annum, payable February 15 and August 15. |

a. Suppose the debenture was issued on September 1, 1992, at 101.50%. How much would you have to pay to buy one bond delivered on September 15? Don't forget to include accrued interest.
b. What is the amount of the first interest payment?

**Question 4: Covenants**

ABC Corp. is prohibited from issuing more senior debt unless net tangible assets exceed 150% of senior debt. Currently, the company has outstanding $100 million of senior debt and has net tangible assets of $201 million. How much more senior debt can ABC Corp. issue?

**Question 5: Convertible Bonds**

Super Value Inc. had $10 million (face value) of convertible bonds outstanding in 2013. Each bond had the following features:

| | |
|---|---|
| Face value | $1,000 |
| Conversion price | $25 |
| Current call price | 105% (of face value) |
| Current trading price | 130% (of face value) |
| Maturity | 2020 |
| Current stock price | $30 (per share) |
| Interest rate | 10% (coupon as a % of face value) |

a. What is the bond's conversion value?
b. Can you explain why the bond is selling above its conversion value?

Your paper should be three pages in length (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

**Option 2**

It was one of Avery's most puzzling cases. That morning Cornelius Upton, the autocratic CEO of Upton Oil, was found dead in a pool of blood on his bedroom floor. He had been shot but the door and windows were bolted on the inside and there was no sign of the murder weapon. Avery looked in vain for clues in Upton's bedroom and office. He had to take another tack. He decided to investigate the financial circumstances surrounding Upton's demise.

The company's capital structure was as follows:

- 5% debentures: $250 million face value. The bonds mature in 10 years and offer a yield of 12%.
- Stock: 30 million shares, which closed at $9 a share the day before the murder.
- 10% subordinated convertible notes: The notes mature in one year and are convertible at any time at a conversion ratio of 110.

The day before the murder these notes were priced at 5% more than their conversion value. Yesterday Upton had flatly rejected an offer by W. Forkes to buy all of the common stock for $10 a share. With Upton out of the way, it appeared that Forkes' offer would be accepted, much to the profit of Upton Oil's other shareholders. Upton's two nieces, Lindsay and Elise, and his nephew Paul all had substantial investments in Upton Oil and had bitterly disagreed with Upton's dismissal of Forkes's offer. Their stakes are shown in the following table:

| | **5% Debentures (Face Value)** | **Shares of Stock** | **10% Convertible Notes (Face Value)** |
|---|---|---|---|
| **Lindsay** | $4 million | 1.2 million | $0 million |
| **Paul** | 0 | 0.5 | 5 |
| **Elise** | 0 | 1.5 | 3 |

All debt issued by Upton Oil would be paid off at face value if Forkes's offer went through. Holders of the convertible notes could choose to convert and tender their shares to Forkes. Avery kept coming back to the problem of motive. Which niece or nephew, he wondered, stood to gain most by eliminating Upton and allowing Forkes's offer to succeed?

Help Avery solve the case. Which of Upton's relatives stood to gain most from his death? Summarize why you think each relative may or may not have been responsible for the death in regards to their own share within the company.

Your paper should be 3-4 pages in length (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

**Portfolio Milestone (50 points)**

**Important! Read First**

Using the same Portfolio Project option that you selected in week 3 - Module 3 Portfolio Milestone, in keeping with that selection, choose one of the following two Portfolio Project Milestone assignments listed below to complete and submit for the Module 5 Milestone Assignment. Again, remember, do not do both option assignments, and be sure to identify your assignment choice for this week in the title of your submission. Also, you will include these answers in your completed Portfolio Project that will be turned in as part of your completed Module 8 Portfolio Project submission.

## Option #1: Exotic Foods, Inc., Capital Budgeting Case

Exotic Food Inc., a food processing company located in Herndon, VA, is considering adding a new division to produce fresh ginger juice. Following the ongoing TV buzz about significant health benefits derived from ginger consumption, the managers believe this drink will be a hit. However, the CEO questions the profitability of the venture given the high costs involved. To address his concerns, you have been asked to evaluate the project using four capital budgeting techniques (i.e., NPV, IRR, MIRR and Payback) and present your findings in a report.

For your Module 5 Portfolio Milestone and using the additional information to be found in Module 8 Portfolio Project, you are asked to complete questions 3. and 4. as follows:

3. What is the after-tax salvage value of the equipment?
4. What is the projected net income and Operating Cash Flows (OCF) for the three years?
    - Complete an income statement for each year.

You will include these answers in your completed final portfolio project.

### Option #2: Pilgrim Coffee, Inc.

Pilgrim Coffee Inc. is a successful chain of coffee shops that offers handcrafted coffee and espresso drinks using outsourced coffee beans. In their quest to deliver the best cup of coffee around, top management has learned a lot about coffee beans from around the world and are considering the task of roasting their own coffee beans in house at their flagship cafe. They believe they can wholesale their roasted coffee beans to other coffee shops, both local and afar and offer their packaged beans to customers in-house as well use the beans for their own drink creations. The COO is worried about the potentially high costs involved and would like to use your finance knowledge to evaluate the new venture and address their concerns.

For your Module 5 Portfolio Milestone and using the additional information to be found in Module 8 Portfolio Project, you are asked to complete questions 3. and 4. as follows:

3. What is the after-tax salvage value of the equipment?
4. What is the projected net income and Operating Cash Flows (OCF) for the three years?
   - Complete an income statement for each year.

You will include these answers in your completed final portfolio project.

## Module 6

**Required Readings**

- Chapter 28 in *Principles of Corporate Finance*

**Discussion (25 points)**

**Live Classroom (0 points)**

**Critical Thinking (90 points)**

**Option 1: HH Company**

Using the financial statements for HH Company below:

| | |
|---|---|
| Sales | 1,607,500 |
| Cost of goods sold | 1,392,500 |
| Selling, general and administrative | 145,000 |
| Earnings before interest and taxes (EBIT) | 70,000 |
| Federal and state income taxes (40%) | 18,200 |
| Net income | 27,300 |

HH Company
Balance Sheet as of December 31, 20XX

| | | | |
|---|---|---|---|
| Assets | 80,500 | Accounts Payable | 132,000 |
| Accounts Receivable | 334,500 | Current portion of debt | 84,000 |

| | | | |
|---|---|---|---|
| Inventories | 240,000 | Other current liabilities | 114,000 |
| Total current assets | 655,000 | Total current liabilities | 330,000 |
| Net fixed assets | 292,500 | Long-term debt | 256,500 |
| Total assets | **947,500** | Total liabilities | 586,500 |
| | | Common equity | 361,000 |
| | | Total Liabilities & Equity | **947,500** |

1. Calculate the indicated ratios for HH.

| | Company Averages | Industry Averages |
|---|---|---|
| Current Ratio | | 2.2 |
| Days sales outstanding (based on 365-day year) | | 36 days |
| Inventory turnover | | 6.7 |
| Fixed asset turnover | | 12.1 |

| | | |
|---|---|---|
| Total assets turnover | | 3.00 |
| Return on sales | | 1.20% |
| Return on assets | | 3.60% |
| Return on equity | | 9.00% |
| Debt ratio | | 55% |

2. Discuss HH's strengths and weaknesses as revealed by your analysis.

3. Suppose HH doubles its sales as well as its inventories, accounts receivable, and common equity during the year. How would that information affect the validity of your ratio analysis?

Your paper should be 900-1,200 words (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment

**Option 2: Financial Statement Analysis of Public Company**

Look up the latest financial statements for two public companies within the same industry of your choice and calculate the following ratios for the latest year:

1. Return on capital
2. Return on equity
3. Operating profit margin
4. Days in inventory
5. Debt ratio
6. Times-interest-earned
7. Current ratio
8. Quick ratio

Summarize the information revealed in your ratio analysis. Additionally, analyze the financial ratios and compare the two companies' performances against one another. From the ratios, can you determine which company performed better financially?

Your paper should be 900-1,200 words (excluding cover page and references) and formatted according to the CSU-Global Guide to Writing and APA Requirements. Be sure to discuss and reference concepts taken from the assigned textbook reading and relevant research. Review the grading rubric to see how you will be graded for this assignment.

## Module 7

**Required Readings**

- Chapter 30 in *Principles of Corporate Finance*

**Discussion (25 points)**

## Module 8

**Required Readings**

- Chapter 32 in *Principles of Corporate Finance*

**Discussion (25 points)**

**Portfolio Project (250 points)**

Both options have deliverables in Weeks 3 and 5. Identify your portfolio project choice in the title of your submission.

Complete the following questions using Microsoft Word or Excel, as appropriate. Review the rubric to confirm you are meeting the assignment requirements.

**Option #1: Exotic Foods, Inc., Capital Budgeting Case**

Exotic Food Inc., a food processing company located in Herndon, VA, is considering adding a new division to produce fresh ginger juice. Following the ongoing TV buzz about significant health benefits derived from ginger consumption, the managers believe this drink will be a hit. However, the CEO questions the profitability of the venture given the high costs involved. To address his concerns, you have been asked to evaluate the project using three capital budgeting techniques (i.e., NPV, IRR and Payback) and present your findings in a report.

**CASE OVERVIEW**

The main equipment required is a commercial food processor which costs $200,000. The shipping and installation cost of the processor from China is $50,000. The processor will be depreciated under the MACRS system using the applicable depreciation rates are 33%, 45%, 15%, and 7% respectively. Production is estimated to last for three years, and the company will exit the market before intense competition sets in and erodes profits. The market value of the processor is expected to be $100,000 after three years. Net working capital of $2,000 is required at the start, which will be recovered at the end of the project. The juice will be packaged in 20 oz. containers that sell for $3.00 each. The company expects to sell 150,000 units per year; cost of goods sold is expected to total 70% of dollar sales.

Weighted Average Cost of Capital (WACC):

Exotic Food's common stock is currently listed at $75 per share; new preferred stock sells for $80 per share and pays a dividend of $5.00. Last year, the company paid dividends of $2.00 per share for common stock, which is expected to grow at a constant rate of 10%. The local bank is willing to finance the project at 10.5% annual interest. The company's marginal tax rate is 35%, and the optimum target capital structure is:

| | |
|---|---|
| Common equity | 50% |
| Preferred | 20% |

| | |
|---|---|
| Debt | 30% |

Your main task is to compute and evaluate the cash flows using capital budgeting techniques, analyze the results, and present your recommendations whether the company should take on the project.

**QUESTIONS**

To help in the analysis, answer all the following questions. Present the analysis in one Excel file with the data, computations, formulas, and solutions. It is preferred that the Excel file be embedded inside the WORD document (question 8).

1. What is the total investment amount at the start of the project (i.e., year zero cash flow)?
2. What is the depreciation amount for each year?
   - Create a depreciation schedule
3. What is the after-tax salvage value of the equipment?
4. What is the projected net income and Operating Cash Flows (OCF) for the three years?
   - Complete an income statement for each year.
5. What are the Free Cash Flows (FCF) generated from the project?
   - Create a projected cash flow schedule
6. What is the Weighted Average Cost of Capital (WACC)?
   - Compute the after-tax cost of debt
   - Compute the cost of common equity
   - Compute the cost of preferred stock
   - Compute the Weighted Average Cost of Capital (WACC)
7. Using a WACC of 15%, apply four capital budgeting techniques to evaluate the project, assuming the Free Cash Flows are as follows:

| Years | Free Cash Flows |
|---|---|
| 0 | ($252,000.00) |
| 1 | $118,625.00 |
| 2 | $127,125.00 |
| 3 | $181,000.00 |

The four techniques are NPV, IRR, MIRR, and discounted Payback. Assume the reinvestment rate to be 8% for the MIRR. Also, assume that the business will only accept projects with a payback period of two and half years or less.

8. Which of the four techniques should be selected and why?

Present your findings in a report to the CEO with recommendations as to whether the project should be accepted or rejected based on the four criteria. Your analysis should include a discussion of the decision-making rules for each method. Your paper should be formatted according to the [*CSU-Global Guide to Writing and APA Requirements (Links to an external site.)*].

**Option #2: Pilgrim Coffee, Inc.**

**CASE SUMMARY**

Pilgrim Coffee Inc. is a successful chain of coffee shops that offers handcrafted coffee and espresso drinks using outsourced coffee beans. In their quest to deliver the best cup of coffee around, top management has learned a lot about coffee beans from around the world and are considering the task of roasting their own coffee beans in house at their flagship cafe. They believe they can wholesale their roasted coffee beans to other coffee shops, both local and afar and offer their packaged beans to customers in-house as well use the beans for their own drink creations. The COO is worried about the potentially high costs involved and would like to use your finance knowledge to evaluate the new venture and address their concerns.

**CASE OVERVIEW**

The main equipment required is a commercial coffee bean roaster. Management has their eyes set on a vintage commercial roasting machine which costs $180,000. The shipping and installation cost of the machine is $40,000. The roasting machine will be depreciated under the MACRS system using the applicable depreciation rates which are 33%, 45%, 15%, and 7% respectively. Production is estimated to last for three years, and the company will exit the market before intense competition sets in and erodes profits. The market value of the coffee bean roaster is expected to be $120,000 after three years. Net working capital of $5,000 is required at the start, which will be recovered at the end of the project. The coffee beans will be packaged in 12 oz. containers that sell for $22.00 each. The company expects to sell 20,000 units per year; cost of goods sold is expected to total 70% of dollar sales.

Weighted Average Cost of Capital (WACC):

Pilgrim's common stock is currently listed at $45 per share; new preferred stock sells for $50 per share and pays a dividend of $2.50. Last year, the company paid dividends of $1.50 per share for common stock, which is expected to grow at a constant rate of 10%. The local bank is willing to finance the project at 12.5% annual interest. The company's marginal tax rate is 35%, and the optimum target capital structure is:

Common equity 50%
Preferred 20%
Debt 30%

Your main task is to compute and evaluate the cash flows using capital budgeting techniques, analyze the results, and present your recommendations whether the company should take on the project.

**QUESTIONS**

To help in the analysis, answer all the following questions as an accompaniment to your report to the owners. Present the analysis in one Excel file with the data, computations, formulas, and solutions. It is preferred that the Excel file be embedded inside the WORD document.

1. What is the total investment amount at the start of the project (i.e., year zero cash flow)?
2. Prepare a depreciation schedule to show the amount of depreciation for each year.
3. What is the after-tax salvage value of the equipment?
4. What is the projected net income and Operating Cash Flows (OCF) for the three years?
   - Complete an income statement for each year.
5. What are the Free Cash Flows (FCF) generated from the project?
   - Create a projected cash flow schedule
6. What is the Weighted Average Cost of Capital (WACC)?
   - Compute the after-tax cost of debt
   - Compute the cost of common equity
   - Compute the cost of preferred stock
   - Compute the Weighted Average Cost of Capital (WACC)

7. Using a WACC of 15%, apply four capital budgeting techniques to evaluate the project, assuming the Free Cash Flows are as follows:

| Years | Free Cash Flows |
|---|---|
| 0 | ($225,000.00) |
| 1 | $107,725.00 |
| 2 | $116,125.00 |
| 3 | $169,000.00 |

   The four techniques are NPV, IRR, MIRR, and discounted Payback. Assume the reinvestment rate to be 8% for the MIRR. Also, assume that the business will only accept projects with a payback period of two and half years or less.

8. Which of the four techniques should be selected and why?

Present your findings in a report to the CEO with recommendations as to whether the project should be accepted or rejected based on the four criteria. Your analysis should include a discussion of the decision-making rules for each method. Your paper should be formatted according to the CSU Global Guide to Writing and APA Requirements.

## COURSE POLICIES

### Course Grading

20% Discussion Participation
45% Critical Thinking Assignments
35% Final Portfolio Project
0% Live Classroom

| Grading Scale | |
|---|---|
| A | 95.0 – 100 |
| A- | 90.0 – 94.9 |
| B+ | 86.7 – 89.9 |
| B | 83.3 – 86.6 |
| B- | 80.0 – 83.2 |
| C+ | 75.0 – 79.9 |
| C | 70.0 – 74.9 |
| D | 60.0 – 69.9 |
| F | 59.9 or below |

## In-Classroom Policies

For information on late work and incomplete grade policies, please refer to our **In-Classroom Student Policies and Guidelines** or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

**Academic Integrity**
Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /repurposing your own work (see CSU-Global Guide to Writing & APA for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and internet resources.

**Citing Sources with APA Style**
All students are expected to follow the CSU-Global Guide to Writing & APA when citing in APA (based on the most recent APA style manual) for all assignments. A link to this guide should also be provided within most assignment descriptions in your course.

**Disability Services Statement**
CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

**Netiquette**
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults, or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.