



ADC 444
ACCOUNTING AND FINANCE FOR
NON-FINANCIAL MANAGERS

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ACCOUNTING AND FINANCE FOR NON-FINANCIAL MANAGERS

COURSE OVERVIEW

This course is about accounting and finance—that is, what non-accountants and non-financial managers need to know about accounting and finance to be able to take an active part in decision-making. An effective manager must rely on input from the experts from all areas of the business—operations, personnel, marketing, etc.—because good decisions are not made in a vacuum. And like it or not, accounting and financial considerations are important aspects of decision-making in the business world.

This course is designed to introduce non-financial managers or aspiring managers in public and private settings to general concepts in accounting and financial considerations. This will enable you to converse with the experts, asking the right questions and providing relevant information for good decisions. This course will not make you an expert, but will enable you to make better use of the experts and the input they will provide.

Accordingly, the goals of this course are:

1. To introduce the student to the role of finance, economics and accounting in the business world by providing a broad look at the financial environment within which businesses operate.
2. To consider the underlying purposes of the accounting and finance functions, providing a conceptual framework for accounting, finance and economic considerations in decision-making.
3. To provide a basic understanding of financial statements, including preparation of the statements for one's own business as well as analysis of the statements of one's own and other companies.
4. To introduce the student to informational resources, such as the Wall Street Journal, the Internet, annual reports of publicly traded companies, and how to use these resources effectively.
5. To assist the student in an understanding of the basic concepts of managerial accounting and finance, particularly cost behavior and break-even analysis.
6. To examine financing alternatives for businesses and the considerations necessary to make effective decisions regarding investments, cash management, capital projects and other management decisions which have financial and/or accounting implications.
7. To introduce terminology associated with finance and accounting.

COURSE REQUIREMENTS & MANAGEMENT

ARTICLE REVIEWS

The weekly assignments contain articles that complement the readings from the main text. Some articles are more straightforward and practical, while others are more theoretical and stretching. Regardless of the publication dates or source, all are relevant in some way to your development as a non-financial manager. Most students will benefit from completing the text readings prior to the articles assigned. Don't be too concerned if portions of some articles are confusing and hard to understand. Do your best to grasp the primary intent of the articles even if some of the finer points seem over your head.

Where the assignments designate a "Review," you are to prepare your response using the [Article Review template provided](#). Be sure to answer every part of the template thoroughly. Your understanding of the article and ability to see the importance or relevance of what you have read will be the focus of the instructor's evaluation of these papers. The **key points** portion might also be referred to as an executive summary of the article. It needs to provide the type of information that would enable someone who had not read the article to grasp the author's main points. Good coverage of the key points will be 2-5 paragraphs in length, depending on the length and complexity of the article. In the **reaction** portion of the review, focus on the *application of the article* to your business experience or personal life and it's relation to other readings. This is not meant to be a critique of the author's style or writing ability or an indication of whether you liked or disliked the article. While your opinion and experience is valuable, those who do the best on this assignment will show how the article relates to other readings for the class (articles and the textbook readings) or other courses in the P.A.C.E. program. This is especially important for those without personal experience to connect to the article.

Reviews are to be submitted at the beginning of each class. Late reviews receive reduced credit. If you do not attend a class, assignments due should be emailed to the professor or submitted by a friend.

COURSE GRADING

Your grade for the course will be a combination of your work on assignments and your participation. Participation includes preparation for class, attendance, and involvement in class discussion.

Attendance

Due to work conflicts, you may find it impossible to attend all sessions of the course. However, due to the nature of this program, class attendance cannot be duplicated by getting notes from someone who attended. Missed classes or consistent late arrival or early departure will affect your final grade, since it affects your ability to participate in all aspects of the course. One half of your participation grade is determined by attendance and each absence lowers your participation grade by 10%. Thus, students who miss a class may find it difficult to earn an A or A- in the course. Those who miss the equivalent of two classes will not receive credit for the course.

Late Papers

Papers submitted after the due date will **not** receive full credit. If you plan to miss a class, you should make arrangements for your papers to be submitted on or before the due date.

Final Grade

The grade for the course will be based on the following:

Article Reviews and Reaction Papers	45%
Company Analysis	40%
Participation	15%
(includes attendance, activity assignments, and involvement in class discussion and group activity)	

COMPANY ANALYSIS

The purpose of this assignment is to pull together the various aspects of this course and to give you the opportunity to demonstrate what you have learned about accounting and finance. With careful attention to these issues, you will successfully analyze a company's financial situation, including its strengths and weaknesses. Even non-financial managers can understand much of what is presented in the annual report. You should be able to begin work on your project following completion of the Week 2 class.

Everyone in the course will analyze the same company, beginning with the annual report provided by the instructor. While the annual report will be your primary source of information, you are encouraged to gather information about the company from other sources: newspapers, magazines, and Internet sites. However, merely printing pages from these sources without evaluation will not enhance your grade. You may find the following web sites helpful: <http://finance.yahoo.com/> <http://www.morningstar.com>

One of the best sites is <http://moneycentral.msn.com>. When you go to this site, go to "Investing," insert the symbol, and begin exploring. Current company ratios and industry comparisons can be found under "Financial Results." (Note: the easiest access to this site is through *Internet Explorer* from Microsoft.) Company websites may prove helpful as well. Another useful site is <http://www.reuters.com>

You may want to review some of the articles assigned for assistance in analyzing the annual report and the financial information. The paper should be in your words. **Do not merely copy from company and other websites and if you do you must give proper credit to the source to avoid plagiarism.**

Your final paper should conform to the following format **with each section properly labeled**:

- I. **Company Overview** - This introduces the reader to the company, provides a brief history, and describes its age, size (employees and locations) and activities (divisions and products). (One page maximum)
- II. **Financial Analysis** - This will be the major thrust of the paper. You should review the strengths and weaknesses revealed by analysis of the key financial statements (balance sheet, income statement, and statement of cash flows). A vital part of doing this includes an analysis of the common-size income statement, cash flow, and the key financial ratios. This should include your comments and assessment of the numbers. You may also note subjective concerns or other information you discover while researching the company. Be sure to include a table that summarizes all of the financial ratios used in your analysis in this section. For additional help in interpretation of the ratios see this site: <http://www.investopedia.com/university/ratios/#axzz1fuJ4pcMz> . (Usually 4-5 pages)
- III. **Reaction & Opinion** - This is a summary of the major points considered in evaluating the company. Provide your overall assessment of the company, suggestions for improvement, as well as questions you feel remain unanswered. Do not feel that you must be critical, and neither should you feel obligated to be complimentary if it is unwarranted. Try for a balanced expression of your opinion of the company's status and prospects, threats, and opportunities. Note this is not the place to introduce new information or surprises. This part should be a logical outgrowth of your analysis. (Two page maximum)
- IV. **Appendix** - For information and calculations which do not fit into the body of the paper. Please show at least one year of ratio calculations in this section.
- V. **Bibliography** - Identify all sources consulted. Be sure to note your source for industry averages and the "industry" used for the comparison.

ASSIGNMENTS

Some assignments are to be completed **prior** to the week's class. Please complete **only those sections of the activities noted**. The balance of these will be completed in class. Article Reviews are to be submitted on the template provided in the course book. No special formatting is required. Typed reviews are preferred but neatly written, legible papers are permitted.

Read the Course Requirements & Management sections of this manual prior to beginning your work for the course. **Pay special attention to the expectations for an Article Review**, if you want to achieve the highest grades possible for these reviews.

If you need help understanding terms and principles in the articles or other parts of the course, you may want to check the website, <http://www.investopedia.com>, which has been helpful to others.

You will need a basic calculator for each class session.

CLASS 1

1. Read Chapters 1, 2, and 4 from *The Essentials of Finance and Accounting for Non-Financial Managers*. Reading these chapters prior to the articles assigned may aid your understanding of the articles.
2. Write a [Review](#) for "Overhead Can Kill You" *Forbes*, February 10, 1997. Overhead and how we account for it is a timeless issue for business. This article discusses what has become a widely accepted approach to the issue of cost allocation.
3. Write a [Review](#) for "When Balance Sheets Collide with the New Economy," *New York Times*, Sept. 9, 2007.
4. Complete Part 1 of [Activity 1.1, The Federal Reserve](#). Print and bring to class a copy of the activity.
5. Complete Part 1 of [Activity 1.2, Balance Sheet and Income Statement](#). Print and bring to class a copy of the activity. Do not do any of the activity before class.

CLASS 2

1. Read Chapters 5, 6, and 7 from *The Essentials of Finance and Accounting for Non-Financial Managers*.
2. Review the information available at http://en.wikipedia.org/wiki/Financial_statements. Follow any of the links, which appear in blue, to find more information on financial statements and the meanings of their various sections and components.
3. Write a [Review](#) for “Six Years of the Sarbanes-Oxley Act,” *CPA Journal*, August 2008. If you need more information on this legislation refer to the text (pages 78-80), do a Google search, or check it at <http://www.investopedia.com> .
4. Write a [Review](#) for “Financial Basics for Growing Companies” *In Business*, Nov/Dec 2003.
5. Complete Parts I, II and III of [Activity 2.1](#). **Do not go beyond Part III.** Print and bring to class a copy of [Activity 2.1](#).
6. Purchase or obtain a copy of the *Wall Street Journal* for class. (Avoid Monday editions.) Prior to class complete [Activity 2.2](#) and bring it to class. Use the *Wall Street Journal Student Guide* to assist you as necessary. Bring your *Wall Street Journal* to class with you.

Another helpful website for understanding financial ratios is:

<http://www.investopedia.com/university/ratios/> or
<http://www.investopedia.com/university/ratios/#axzz1fuJ4pcMz>

CLASS 3

1. Read Chapters 3, 8, and 12 from *The Essentials of Finance and Accounting for Non-Financial Managers*.
2. Write a [Review](#) for “Tactical Issues & Best Practice Solutions in Budgeting,” *Financial Executive*, December 2003.
3. Write a [Review](#) for “Do Scorecards,” *CAMagazine*, May 2005. Scorecards are a hot topic and they are now being used by both profit-seeking and not-for-profit organizations throughout the world. If you are not familiar the concept of a balanced scorecard, do a Google search to gain some background. While website content sometimes changes and availability can’t be guaranteed, one source that has been helpful to others is http://www.businessballs.com/balanced_scorecard.htm .
4. Read “Solving the Puzzle of the Cash Flow Statement” *Business Horizons*, January-February 1997. Using the article complete Part 1 of [Activity 3.1](#), Cash Flow. Print and bring to class a copy of this activity. This is a foundational article for how to use the cash flow statement to analyze a business.
5. Print and bring to class a copy of [Activity 3.2](#).
6. Read and review the requirements for the “company analysis” found earlier in the course materials. Begin your company analysis by locating and reading the annual report online and begin to formulate questions you have about the project. Begin your ratio calculations.
7. Prepare the common-size income statement (as on the PowerPoint slides for Week 2) for the most recent fiscal year in your Walmart annual report and add it to the information presented in class. **Analyze the results** - When compared with the previous years are there favorable or unfavorable trends? Write your comments on the sheet and **submit a copy of your calculation and comments to the instructor at class**.
8. The article, “Are Your Clients Listening to Their Financial Statements” is included in the reader to provide an additional resource on ratios. You may find that this article will supplement our discussion of interpreting ratios during class 2. Note that the article covers some ratios which are not discussed in class. This is not meant to add to the list of ratios you are expected to analyze.

CLASS 4

1. Read Chapters 9 from *The Essentials of Finance and Accounting for Non-Financial Managers*.
2. Read the Avery Products Case and highlight what you believe to be the key issues in the case. **Do not complete the questions.** The case will be analyzed together in class. Print and bring a copy of [Activity 4.1](#) to class.
3. Write a [Review](#) for the following articles:
“Breaking Free from Budgets,” *Inc.*, October 2003.
“Asset Management is Your Job,” *Supervision*, January 2008.
4. Continue working on your company analysis or begin the work if you have been procrastinating. In particular, complete your ratio calculations if you have not already done so and find the industry averages for the company analysis.
5. Print and bring to class a copy of the [Activity 4.2 – Break-even Analysis](#). Do not work on the problems prior to class.

CLASS 5

1. Read Chapters 10 and 11 from *The Essentials of Accounting and Finance for Non-Financial Managers*.
2. Write a [Review](#) for “Small Business (A Special Report),” The Wall Street Journal, Nov.29, 2004.
3. Complete and submit your company analysis.
4. Print a copy of [Activity 5.1](#) and bring it to class. Do not complete any of the problems prior to class. Also be sure to have **a copy of the Interest Tables** which appear as [Appendix I](#) in this course manual OR print a copy from the [Accounting & Finance](#) web page or the [Week #5](#) Assignments folder when you downloaded the Course Manual. A link to a more extensive version of the interested tables (in an Excel Spreadsheet Format) is also provided online on the [Accounting & Finance](#) webpage on the P.A.C.E. site but this is not necessary for class use ([this Excel file was also downloaded to the Week #5 Assignments Folder when you downloaded the Course Manual](#)). – Do **NOT** print this Excel File – Print the PDF file.
5. Print a copy of [Activity 5.2](#) and bring it to class
6. Print a copy of [Activity 5.3](#) and bring it to class.

ARTICLE REVIEW FORM

Name:

Date:

Title of Article:

Author:

Source:

What are the **key points** of the article?

What in the article was **confusing** to you?

Reaction - Explain how the article was helpful to you, why you agree or disagree with the author, and especially **how the article relates to an experience you have had**. Also, explain **how the article relates to other topics or readings (text or articles) in this course** or another course.

ACTIVITY 1.1 - The Federal Reserve

Part 1 - For homework

This activity will acquaint you with the Federal Reserve through use of the Internet, as well as through a videotape, which we will view in class. Go to the web site <http://federalreserve.gov> or <http://www.frbsf.org/publications/education/plainenglish/index.html> and browse. If you have trouble then do a Google search for the Federal Reserve Board. Find the answers to the questions below by exploring the site.

This activity is to be completed prior to the first class. Answer the questions in the spaces provided.

Q1 – Find and list the cities of each of the banks in the twelve Federal Reserve districts.

A1 –

Q2 – How long is a full term for a member of the Board of Governors? How does one become a member of the Board of Governors? List the current members of the Federal Reserve Board of Governors.

A2 –

Q3 – Where does the Fed receive its operating income?

A3 –

Q4 – Find a section on the U.S. economy (possibly under research) and see what information you can find on your region (Upstate NY) or city. List two important or helpful pieces of information you find.

A4 –

Part 2 - In class

While watching the Federal Reserve video, answer the following questions as instructed. (Your ability to answer these questions may depend on which video the instructor uses in the course.)

Q1 – What are the key roles of the FED?

Q2 – Identify factors that affect bank “safety.”

Q3 – What is the discount rate?

Q4 – What is the main cause of inflation? Explain in terms of its impact on interest rates, prices, spending, etc. Describe the effect of an “over-correction.”

Q5 – Why would the Fed want to correct inflation; that is, what are some of the negative implications of inflation?

Q6 – What is the difference between monetary policy and fiscal policy?

ACTIVITY 1.2 - Balance Sheet and Income Statement

This activity will acquaint you with the process of preparing financial statements, as well as calculating depreciation and tax expense.

Complete the parts of this activity as instructed by the course manual or classroom instructor. Print out a copy of this activity and bring it to class.

Part I – Introduction

In this part, you will find the account titles from the chart of accounts for Back to School, Inc. On the next page, answer the following questions for each account:

1. What type of account (eg. Revenue, Expense, Asset, Liability, Owner's Equity)?
2. On which financial statement do you think it will appear (eg. Balance sheet or income statement)?

<u>ACCOUNT TITLE</u>	<u>TYPE</u>	<u>B/S or I/S?</u>
Cash		
Rent Expense		
Office Equipment		
Supplies Expense		
Common Stock		
Marketable Securities		
Preferred Stock		
Accounts Payable		
Machinery		
Interest Expense		
Cost of Goods Sold		
Depreciation Expense		
Retained Earnings		
Sales		
Paid-in Surplus		
Accounts Receivable		
Utilities Expense		
Mortgage Payable		
Inventory		
Notes Payable		
Buildings		
Salaries and Wages Exp		

Part 2 - Preparing the Financial Statements (In class)

Here you see the account balances, as of the end of the first year of operations. Using the accounts and their respective balances listed below, prepare the balance sheet and income statement for Back to School, Inc. Refer to your answers in Part 1 for help.

Retained Earnings	10,000	Rent Expense	12,000
Income Tax Expense	1,765	Long-Term Debt	18,300
Interest Expense	6,750	Depreciation Expense	6,300
Cash	23,000	Inventory	10,500
Cost of Goods Sold	61,250	Supplies Expense	8,000
Notes payable	20,000	Paid-in Surplus	20,000
Machinery	25,000	Salaries & Wages Expense	50,935
Buildings	50,000	Common Stock	25,000
Accounts Payable	9,500	Sales	157,000
Accumulated Depreciation (Bldg)	10,000	Accumulated Depreciation (Machinery)	5,000
Accounts Receivable	9,300		

ACTIVITY 2.1 - Analyzing the Corporate Annual Report

Name

This activity will acquaint you with some of the financial information that is available to the public through a company's annual report. Basic financial analysis of the information provided may provide insights into the company's financial health and viability.

Complete the parts of this activity as instructed by the course manual or classroom instructor. If no instruction is given use the most recent Walmart annual report provided. Prior to class, you may also search for the company's website and explore its offerings.

Part I - Introduction

Company Reviewed:

Ticker Symbol:

Fiscal year reviewed:

Write a brief description of the company.

Part II - Letter to the Shareholders

Read the CEO's letter to the shareholders if one exists. If there is no letter from the CEO, read the interview with management.

1. List the positive aspects of the company.
2. List the problems, if any, which are being experienced.
3. What are the company's future prospects?
4. What is your personal reaction to the letter?

Part III - Non-financial Review

Read the annual report for a re-cap of the company's activities during the year. This will include everything in the report except for the CEO's letter and the financial statements.

1. List 3 things that impressed you.

Why did they impress you?

2. List 2 concerns, if any, which arise from your reading.

Why do these concern you?

Part IV - Financial Analysis

Prepare the common-size income statement.

Part V - Financial Analysis

Calculate the following ratios using the company balance sheet and income statement. Compare each ratio with the industry average.

1. Current ratio
2. Quick ratio
3. Debt to Equity
4. Inventory turnover
5. Days' Sales Outstanding (Average collection period)
6. Return on Sales (Profit margin on sales)
7. Return on total assets
8. Return on equity

What strengths and weaknesses are revealed and what conclusions can be drawn from a review of the ratios and comparison with the industry averages?

ACTIVITY 2.2 - Understanding the *Wall Street Journal*

The WSJ provides a wealth of information for managers in all areas and all levels of an organization. This assignment will focus on some of the general financial information available and its usefulness.

For this assignment, you will need a copy of the Wall Street Journal (WSJ). The paper may be purchased at many establishments that carry daily newspapers. Attempt to obtain a Tuesday, Wednesday, Thursday, Friday, or Saturday edition of the paper. Monday editions will not have the same information. Also, realize that **the information in the paper may vary somewhat from one day to the next**. The WSJ does change their format and location of information from time to time so you may need to use your intuitive skills to locate some of the information. Do your best!

Part I

- A. Visit the internet site for the WSJ: <http://www.wsj.com>

What information is available free to non-subscribers?

Insert the company ticker symbol used in the last exercise and see what information is provided. Print this quote page and attach it to this assignment.

- B. Compare this with the USA Today site: <http://www.usatoday.com/money/mfront.htm>. Try inserting the company ticker symbol in the space provided to get a current quote. Then click on the ticker symbol. What information is provided? (You may print the page to complete this part.)

How does the information on each site compare? Is one more helpful than the other?

- C. What questions do you have about the information provided on either site?

Part II

Browse the sections of the paper. Identify five **financial questions** that you have about using the WSJ as a resource or five things that you don't understand.

1.

2.

3.

4.

5.

Part III

Using the company previously reviewed in the last exercise, find as much of the following information as you can from the Money and Investing section of the WSJ: (Refer to the *Wall Street Journal Guide* in your materials for help if needed. The table, How to Read the Stock Tables, in the paper may also be helpful.) Find the company quote listed under the *1000 Biggest Stocks* and show it below.

Quote Info

Is there anything here you don't understand?

Look at the company index, which is probably on page B2.

Is the company you are analyzing listed?

If so, find out what is being said and briefly summarize it.

Look for the table for the Dow Jones Industrial Average? What is the current level of the DJIA?

Can you locate any information on a mutual fund you own or one which is familiar to you. What information is provided? Do you have any questions about this section on mutual funds?

Part IV

Locate the listing for Money Rates (probably in the Money & Investing section) and find the following:

1. Prime rate
2. Discount rate
3. Federal funds rate
4. Commercial paper (60 days)
5. Treasury bills (13 weeks)

In what ways might a manager find these rates helpful? (For class discussion.)

ACTIVITY 3.1 - Cash Flow

Name

Part 1 - Introduction

In November 1987, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 75, which requires the presentation of a statement of cash flows by companies which release audited financial statements. Prior to that time, companies prepared a statement of changes in financial position, which presented the sources and uses of working capital. As you learned earlier in this course, working capital is the excess of current assets over current liabilities.

The Statement of Cash Flows is a formal presentation of the sources and uses of cash. Whereas the cash budget is based on management forecasts of operations, the statement of cash flows is based on the actual activity and is prepared at the end of the operating cycle. The statement of cash flows and the cash budget are useful tools to emphasize the availability of *cash*, as distinguished from *net income*, which is shown by the income statement.

Before beginning this activity, refer to Chapter 8 in the text.

Refer to the article, "Solving the Puzzle of the Cash Flow Statement," Business Horizons, January/February 1997, pp. 69-76, to answer the following questions.

1. List and briefly discuss some of the reasons many managers do not utilize the statement of cash flows effectively.
2. Identify several types of information provided by analysis of the statement of cash flows.
3. Identify the three sections of the statement of cash flows and briefly discuss the Contents of each. Be sure to mention what is considered good news and what is considered bad news in analyzing this statement.
4. Briefly discuss two anomalies of the statement of cash flows.

Part 2 – Analyzing a Statement of Cash Flows

Refer to the annual report you used in Activity 2.1 and find the statement of cash flows.

Perform an analysis of the statement of cash flows using steps 2-4 in the “Puzzle” article (see Part 1, above). Hint: refer to the article frequently as you perform your analysis, answering each question and performing each sub-step the article suggests. Label each step to create an outline for your analysis. Below are the first few items within Step 2 to get you started. Note that Step 1 in the article is similar to the review done last week so this part of the analysis has been completed and we will proceed immediately to Step 2.

Step 2: Checking the power of the cash flow engine.

Focus on the cash flow from operating activities. What should you see in a healthy, growing company?

Step 3: Pinpointing the good news and the bad news.

Focus on cash flow from investing activities and from financing activities. What should you see in a healthy, growing company? Are there any danger signs?

Step 4: Putting the puzzle together.

Are there any unusual items? Has the company had a net increase or decrease in cash over the past year? What about in the previous years?

Part 2 – The Cash Budget

The cash budget shows the expected cash inflows and outflows for a given period. It can be prepared only after the sales budget, purchases and/or production budgets, capital budget and general expense budgets have been prepared. The cash budget is a tool to assist management in avoiding excessive cash balances, anticipate cash shortages and arrange for loans in advance, and generally ensure sufficient cash to meet the company's obligations as they become due.

A simple formula for cash budgets is as follows:

$$\text{Beginning cash} + \text{Cash received from customers} - \text{Cash disbursements} = \text{Ending cash} *$$

*Consideration must be given to any borrowing necessary to meet minimum cash requirements.

PACESetters, Inc. manufactures widgets, which they sell for \$10 each. Sales forecasts are as follows: November – 30, 000 units; December – 35,000 units; January - 25,000 units; February -- 35,000 units; and March -- 45,000 units.

Assume that 50% of the sales will be cash, 30% of sales is collected in the month following the sale and the remainder in the second month following the sale. Assume the company must have a beginning cash balance of \$30,000 to comply with a credit agreement with the bank that provides that so long as the company maintains a minimum balance of \$30,000 the company shall have a \$250,000 line of credit. Interest on amounts borrowed against the line of credit will be 12% per annum (1% per month) based on the beginning balance and payable on the last day of each month. The line of credit loan balance was \$50,000 at the beginning of January. Management expects to make the following disbursements for operating expenses other than interest:

◆ January	\$200,000
◆ February	\$325,000
◆ March	\$350,000

Wages will be 10 % of the previous month's sales.

Excess cash inflows during the month will be used to decrease the amount of the outstanding line of credit.

Using the worksheet provided (next page), prepare monthly cash budgets for the first quarter of the year.

Activity 3.2 -- Cash Budget for PACEsetters			
	January	February	March
Beginning Cash Balance	30,000.00		
Add: Cash Receipts			
Cash sales			
Receipts from prior month			
Receipts from two months prior			
Total receipts plus cash (1)			
Less: Cash Disbursements			
Operating expenses			
Wages			
Interest (on line of credit balance)			
Total disbursements (2)			
Preliminary balance (1-2)			
Additional loan from line of credit OR			
Repayment of loan to bank			
Ending Cash Balance			
Ending Loan Balance			

ACTIVITY 4.1 - The Avery Products Case

The activities on this page go with the case, Avery Products, which follows. You are doing this analysis in mid-January as the loan committee for the First National Bank.

Part I

Working in a group, calculate the key financial ratios for Avery Products. Be sure to calculate ratios for a minimum of two and preferably three years. (Your instructor may choose to provide you with some or all of this information.)

Part II - You are to function as the loan committee for the bank and make a recommendation on the bank's action. Use the following questions to assist you. Assume that it is now early to mid-January 2006.

1. Analyze the ratios over time and compare them with the averages for the industry. Identify the company's strengths and weaknesses paying particular attention to accounts receivable and inventory levels.
2. What changes, if any, need to be made in the financial management of this firm? What amount of *internal* funds would be available for the retirement of the loan? If the bank were to grant the additional credit and extend the increased loan from a due date of February 1, 2006 to June 30, 2006, would the company be able to retire the loan on June 30, 2006? (HINT: To answer this question, consider profits and depreciation as well as the amount of inventories and receivables that would be carried if Avery Products' inventory turnover and average collection period were at industry average levels, that is, generating funds by reducing inventories and receivables to industry averages. For simplicity you may round 2006 sales to \$2.9 million in answering this question.)
3. On the basis of your financial analysis, do you believe that the bank should grant the extension on the \$300,000 and grant the additional loan of \$100,000 and extend the due date for the entire line of credit to June 30, 2006? If the credit extension is not made, what alternatives are open to Avery Products?
4. What counsel or recommendations, if any, will you make to the firm?
5. Prepare for your meeting with John Avery, company president. Designate one member of the group to present your decision and recommendations.

Part III

Meet with John Avery. His role will be played by the instructor.

Avery Products

Robert Engel, vice president and loan officer of the First National Bank of Cincinnati, was recently alerted to the deteriorating financial position of one of his clients, Avery Products, Inc., by his bank's newly instituted computer-loan-analysis program. The bank requires quarterly financial statements—balance sheets and income statements—from each of its major loan customers. The bank calculates the key ratios for each customer, charts trends in these ratios, and compares the statistics of each company with the average ratios and trends of other firms in the same industry. If any ratio of any company is significantly poorer than the industry average, the computer output makes note of this fact. If the terms of a loan require that certain ratios be maintained at specified minimum levels, and these minimums are not being met by a company, the computer output notes the deficiency.

When an analysis had been run on Avery Products three months earlier, Engel had noticed that some of the company's ratios were showing downward trends, dipping below the averages for the jewelry manufacturing industry. Engel had sent a copy of the computer output, together with a note voicing his concern, to John Avery, president of Avery Products. Although Avery had acknowledged receipt of the material, he had taken no action to correct the situation.

The first financial analysis indicated that some problems were developing, but no ratio was below the level specified in the loan agreement between the bank and Avery Products. However, the second analysis, which was based on the data given in Tables 1, 2, and 3, showed that the current ratio was below the 2.0 times specified in the loan agreement. According to the loan agreement, the Cincinnati Bank could legally call upon the company for immediate payment of the entire bank loan, and if payment was not forthcoming within 10 days, the bank could force Avery Products into bankruptcy. Engel had no plan of actually enforcing the contract to the full extent that he could legally, but he did intend to use the loan agreement provision to prompt Avery Products to take some decisive action to improve its financial picture.

Avery Products is a company that manufactures a complete line of high quality, costume jewelry products. In addition to its regular merchandise, Avery creates special holiday items for the Christmas season. Seasonal working capital needs have been financed primarily by loans from the Cincinnati Bank, and the current line of credit permits the company to borrow up to \$300,000. In accordance with standard banking practices, however, the loan agreement requires that the bank loan be repaid in full at some time during the year, in this case by February 2006. Higher costs, especially of metals, as well as increased wages of skilled craftsmen, led to a decline in Avery Products' profit margin and net income during the last half of 2004 as well as during most of 2005. Sales increased during both of these years, however, due to the firm's aggressive marketing program, despite competition from shell and turquoise jewelry makers.

When Avery received a copy of Engel's latest computer analysis and the blunt statement that the bank would insist on immediate repayment of the entire loan unless the firm presented a program showing how the poor current financial picture could be improved, he began trying to determine what could be done. He rapidly concluded that the present level of sales could not be continued without an *increase* in the bank loan from \$300,000 to \$400,000, since payments of \$100,000 for construction of a plant addition would have to be made in January 2006. Even though Avery Products had been a good customer of the Cincinnati Bank for over 50 years, Avery began to question whether the bank would continue to supply the present line of credit, let alone increase the loan outstanding. Avery was especially troubled by the fact that the Federal Reserve System recently had tightened bank credit, forcing the Cincinnati Bank to ration credit even to its best customers.

TABLE 1 AVERY PRODUCTS, INC. BALANCE SHEET YEAR ENDED DECEMBER 31

	2003	2004	2005
Cash	\$ 61,000	\$ 28,600	\$ 20,400
Accounts receivable	245,000	277,400	388,000
Inventory	<u>306,000</u>	<u>510,000</u>	<u>826,200</u>
Total current assets	\$612,000	\$ 816,000	\$1,234,600
Land and building	49,000	130,600	122,400
Machinery	151,000	118,300	102,000
Other fixed assets	<u>28,600</u>	<u>8,200</u>	<u>6,100</u>
Total assets	<u>\$840,600</u>	<u>\$1,073,100</u>	<u>\$1,465,100</u>
Notes payable, bank	—	102,000	286,000
Accounts and notes payable	98,000	155,000	306,000
Accruals	<u>49,000</u>	<u>57,000</u>	<u>77,500</u>
Total current liabilities	\$147,000	\$ 314,000	\$ 669,500
Mortgage	45,000	40,800	36,700
Common stock	365,000	365,000	365,000
Retained earnings	<u>283,600</u>	<u>353,300</u>	<u>393,900</u>
Total liability and equity	<u>\$840,600</u>	<u>\$1,073,100</u>	<u>\$1,465,100</u>

TABLE 2 AVERY PRODUCTS, INC. INCOME STATEMENT

	2003	2004	2005
Net sales	\$2,652,000	\$2,754,000	\$2,856,000
Cost of goods sold	<u>2,121,600</u>	<u>2,203,200</u>	<u>2,284,800</u>
Gross operating profit	\$ 530,400	\$ 550,800	\$ 571,200
General administration and selling	204,000	224,400	244,800
Depreciation	81,600	102,000	122,400
Miscellaneous	<u>40,800</u>	<u>85,700</u>	<u>122,400</u>
Net income before taxes	\$ 204,000	\$ 138,700	\$ 81,600
Taxes (35%)	<u>71,400</u>	<u>48,545</u>	<u>28,560</u>
Net income	<u>\$ 132,600</u>	<u>\$ 90,155</u>	<u>\$ 53,040</u>

TABLE 3 AVERY PRODUCTS, INC.

	Jewelry Manufacturing Industry Ratios (2005)
Quick ratio	1.0
Current ratio	2.7
Inventory turnover	7X
Average collection period	32 days
Fixed-asset turnover	13.0X
Total asset turnover	2.6X
Return on total assets	11.7%
Return on net worth (equity)	23.4%
Debt ratio	50%
Profit margin on sales	4.5%

Industry average ratios have been constant for the past three years.

ACTIVITY 4.2 - Break-Even Analysis

Part 1 - Variable and Fixed Costs

Break-even analysis is a management tool used to determine the volume of sales necessary to cover fixed costs. Break-even analysis is also useful in estimating profit given a particular production or sales volume. Break-even analysis assumes that certain costs – variable costs – vary in direct proportion to the number of units produced or sold and that other costs – fixed costs – remain constant regardless of production or sales volume within the relevant range. It is important, therefore, to distinguish between variable and fixed costs, recognizing that some costs may be *semifixed* or *semivariable*.

Identify the following costs as either fixed, variable, or semifixed/semivariable.

Rent on office building

Telephone service, which includes a base rate, plus a charge for each call placed

Commissions to sales and marketing personnel

Direct manufacturing materials

Salaries for administrative personnel

Direct manufacturing labor

Straight-line depreciation on plant equipment

Property taxes on factory site

Maintenance for delivery vehicles

Factory supervisor wages

Part 2 – Contribution Margin

The contribution margin refers to the excess of revenue over variable costs for each unit of production, that is, how much is left from each sales dollar, after paying the variable (or direct) costs, to contribute to the coverage of fixed costs? When the contribution margin is known, one can calculate how many units must be produced or sold to make a profit, or calculate how much profit (or loss) the company will experience at any given level of production or sales. A simple formula for contribution margin, which is used to calculate the break-even point in *number of units* to be sold or produced, is:

Unit contribution margin = Sales price per unit - Variable cost per unit

You operate the PACESetters Sports Camp, which provides basic instructions to boys and girls ages 10-18 in three divisions. A college coach supervises each division. Camp runs from 9-4 each day. Campers bring their own lunch. Campers pay \$110 each for a 5 day program. Each camper receives a shirt and a ball. Last year you had 190 campers for which you had 20 counselors and you plan to hire the same number this year. (You hire players from local colleges and you normally have all of these people under contract prior to the end of camp registration.) You have identified the following costs:

Miscellaneous	\$ 400.00
Director salary	1,500.00
Insurance per camper	5.00
Camp shirt	7.00
Ball	12.00
Awards	200.00
Trainer	600.00
Training supplies	100.00 plus \$2.00 per camper
Coaches (1 per division)	1,000.00 each
Counselors	250.00 each

Determine your fixed and variable costs and then calculate your unit contribution margin. Calculate total fixed costs.

ACTIVITY 5.1 - The Time Value of Money

The short problems that follow illustrate different aspects of the time value of money, including future value of a sum, present value of a sum, future value of an annuity, and present value of an annuity.

Before beginning to work on these problems you should have interest rate tables ([See Appendix I](#)) and a simple calculator. You may also solve the problems using a financial calculator.

Unless the problem tells you otherwise, assume the interest is paid annually.

Part I

Future Value of a Sum

1. You receive a gift of \$2000 at the birth of your daughter. You decide to invest the money for her college education. If you can earn 8% on the money for the 18 years, how much will your daughter have if you do not use any of the interest and you do not add to the principal?

Present Value of a Sum

2. On Christmas, you open a gift from grandma and find a \$50 U.S. savings bond. When you read the fine print, you realize that the bond is not worth \$50 until it matures in 7 years. In the meantime, you would like to know what grandma paid for your gift, if you assume an interest rate of 6%. How much did grandma pay for the bond?

Future Value of an Annuity

3. You realize that a one-time gift at birth will never fund your daughter's college education. As a result, you decide to contribute \$500 per year to a college savings fund for 15 years. If you assume that you will earn only 5%, how much will you be able to accumulate?

Present Value of an Annuity

4. You receive a telephone call from the Printer's Clearinghouse announcing that you are a winner in their annual sweepstakes. You are given a choice of \$5000 per year for the next 10 years or \$35,000 in cash immediately. All money is tax-free. If you assume an interest rate of 6%, which alternative should you choose in order to maximize the value of what you receive?

Part II

5. You purchase your home for \$80,000. If real estate in your area appreciates at 5% each year, how much should your home be worth on the market in 10 years assuming that it is in a condition comparable to when you purchased it?

6. You have been contributing \$1000 per year for the past 12 years to your company's 401(k). The company has provided a 50% match and added to your account annually. If the 401(k) investments have been earning an average of a 12% annual return, how much is your account worth?

7. The local bank is offering a 2-year CD (certificate of deposit) at 8%. How much will you have when a \$1000 CD matures?

8. Your competitor offers you \$7,000 per year for the next 5 years for the right to a company patent. You instruct your lawyer to negotiate an immediate lump sum payment instead. Assuming a 6% rate, what is the least you would be willing to accept?

9. A friend borrows \$2000 from you to start a business. She agrees to repay you \$2600 in 3 years. Assuming that you passed up an investment that would have earned you an annual return of 8%, did you get a good deal?

Part III

Accumulation of a Future Sum

10. Your goal is to retire in 20 years as a millionaire. You have been told that stocks should provide an average return of 10% annually over that time. If so, how much do you need to invest each year to achieve your goal?

Loan Amortization

11. Construction of your new business will require an expenditure of \$300,000. If the lender requires that you make equal payments over the next 20 years at 8%, what will your annual payments be?

ACTIVITY 5.2 - Granting a Loan

As a lender you have been told that **the following loans have been approved**. Your job is to **determine the rate** considering those factors you feel are relevant.

1. Joe wants to buy a house for his family (wife and two children). He is a 27 and makes \$42,000 per year. He is requesting a loan of \$50,000 for 20 years.

Rate - _____ Concerns -

2. Dr. Bigshot is president of a local university. He and his wife are about to celebrate their 25th wedding anniversary. Bigshot wants to buy his wife a diamond anniversary band and wants a two year loan for \$2,500.

Rate - _____ Concerns -

3. Mary is a college student entering her final year of college. Financial aid has just told her that one of her grants has been eliminated and she will need \$4,000 to register for classes. She needs a \$4,000 loan for 10 years.

Rate - _____ Concerns -

4. Jim and Melissa just graduated from college and plan to be married in 3 months. They wish to borrow \$3,500 for a honeymoon cruise. They think they can pay the money back in three years.

Rate - _____ Concerns -

5. Omar needs \$7,500 to buy equipment to begin his own painting and home repair business. He has been working for someone else and now wants to be his own boss. He is investing \$15,000 of his savings in a truck for the business. He plans to pay the loan off with earnings from the business.

Rate - _____ Concerns -

ACTIVITY 5.3 - Leases

Part 1 - Introduction

In a typical lease arrangement, the lessee agrees to rent an asset from the lessor for a certain period of time for a specified fee per period. In a “normal” lease, the lessee has rights to use the property for a certain amount of time – during the lease period. When the lease period is expired, the lessee no longer has any rights to or interest in the property. This type of lease is called an **operating lease**, because it is an operating expense of the lessor and generates revenues from operations for the lessor. The lease payments are recorded as Rent Expense by the lessee and Rent Revenue by the lessor; the lessee’s books show a decrease in Cash and the lessor’s books show a corresponding increase in Cash.

Sometimes a transaction is a lease in form but a sale in substance. That is, the lessee is really a buyer and the lessor is really a seller and the lease payments are really installment payments (which include principal plus interest) on the purchase price. This type of transaction is a popular method of long-term financing. Refer to your textbook for a list of the conditions that indicate that a transfer of “material ownership interest” has taken place. If any one of those conditions is satisfied, the lease in question must be classified as a **capital lease**. In such a case, the lessee records the leased equipment as a purchased asset and shows a corresponding payable in the liability section of the balance sheet. When lease payments are made each period, the amount of the lease liability is decreased and the lessee records a decrease in Cash. At the same time, the lessor must record a “disposition” (or sale) of an asset by removing the leased asset from the balance sheet, and record a receivable that reflects the amount to be received in “lease payments”. When lease payments are received each period, the amount of the receivable is decreased and the lessor records an increase in Cash.

Part 2 - To Lease or Not to Lease (group activity)

List some of the things most often leased by individuals, businesses, or organizations.

Pick an item from the list above and discuss the reasons individuals or financial managers may choose to enter lease arrangement rather than purchase an asset. What are the advantages of the lease arrangement? What are the disadvantages?