

# Accounting I, Online Course Manual

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## Module 1

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### [Video Lectures](#)

*Because seeing and hearing is sometimes better than just reading, I have prepared three video lectures and one audio lecture for this module. You should read the written pages first, but when you are ready just click to play or to download. Links are also provided in the body of the module.*

#### Video

Basic Accounting Concepts: <http://youtu.be/Wu6bUFWaNZo>

Recording Transactions, Part 1: <http://youtu.be/h-0ajeINDsc>

Recording Transactions, Part 2: <http://youtu.be/w62Y09-Cg20>

#### Audio:

What is Accounting? <http://my-accounting-tutor.com/Financial/Podcasts/PodCast2.mp3>

## Module 1 Summary

### Part I – Learning About Accounting

#### I. What is Accounting?

- A. It is almost impossible to define *Accounting* without using the term **information system**. According to Webster, a *system* is “an organized or established procedure.” Therefore, use of this term implies that an established set of activities are followed in doing accounting and that they deal with the processing of information.
1. Since every organization is different, each must establish its own set of procedures for recording business documents and storing them; for making payments and collections and recording them; for keeping track of customer balances and the amounts due to suppliers; for managing cash balances and on and on.
  2. The particular procedures an organization develops in order to do these things is called the organization’s **accounting system**.
- B. Accountants must accumulate information and record it, so that it can be processed, organized, and then reported to the parties who need it. For this reason, accounting is sometimes referred to as “number crunching,” and the accountants who wade through the mass of information in order to make sense of it are sometimes jokingly called “bean counters.” You will soon see, however, that Accounting involves much more than “crunching numbers” and “counting beans.”
- C. The kind of information processed by accountants is called **economic information**. Another term that is commonly used and means the same thing is **financial information**. *Financial* (or *economic*) information is expressed in dollar amounts, and it pertains to what the business owns, how much it owes, and to how profitable it has been.

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#### II. Why is Accounting Important?

- A. Accountants record, process, and report financial information about a business for one major reason: so that interested parties can determine how well the business has met its *goals*.
- B. For a business, the major goal is to sell goods and/or services, and do so **profitably**.

1. **Profits** are achieved when the **revenues** the business earns from the sale of its goods and services are more than the **expenses** it incurs to produce them. Therefore, Profit = Revenues – Expenses.
2. Profits go to the owner(s) of the business.
3. *If the owner cannot earn enough profit from his investment in the business, he will close the business down, withdraw his funds, and invest them elsewhere where the returns are greater.*

**Here's What We Mean!**

*Tom buys 100 ice cream treats for \$1 each, puts them in his cooler, and sells them for \$2 each at the high school baseball game. He plans to earn a profit of \$1 per treat, or \$100 in all. But if Tom can only sell 30 of the treats and the rest all melt before they can be taken home and put into a freezer, then his expenses (\$100) are greater than his receipts (\$60) and he will no longer have a profit. He will have a **loss** of \$40, and will probably decide to not try this business venture again!*

- C. Profitability, however, is only one business goal. The business must also remain *solvent* and not “go bankrupt.” This means that the business must have enough cash on hand to pay its bills, or have reliable ways of obtaining the needed cash. A business that can easily obtain cash when it is needed is said to be highly “**liquid**,” or to have a high degree of “**liquidity**.”
1. The goal of profitability is achieved when the business is able to earn enough to provide adequate returns to the owner(s), but *liquidity* must also be maintained if the business is to survive.
  2. **Liquidity** is achieved when the business has enough cash available to pay its obligations as they come due. (These obligations would include things like bank loans, employee's salaries, amounts owed to suppliers, etc.)

*Profitability and liquidity do not necessarily go hand-in-hand. For example, a firm that makes most of its sales on credit to a single, large customer may be operating very profitably. However, if this one customer goes bankrupt and is unable to make payment on its account, the firm may not be able to raise enough cash from other sources to meet its obligations. If it also fails it will be due to an inadequate **liquidity position**.*

*Note that steps could be taken by management to improve this company's liquidity position. Agreements for emergency lending could be worked out with a network of banks, and this financing might give the company time to find new customers and overcome the loss of its single major customer. “Liquidity management” is one of the responsibilities of the company's financial managers.*

### III. Who Needs Accounting Information?

- A. It is important that we know who the users of the reported accounting information will be and how they will use it, since our mission as accountants is to give the users the information that they need, and in a way that will be **useful** to them.
- B. There are **three primary users** of accounting information:
1. **Investors** – the owner or owners of the business. These parties have invested cash or other assets in the business, and they hope to earn high rates of return on their investments. They include the *stockholders* of a corporation, the *partners* in a partnership, or the individual *owner* of a sole proprietorship (see below for more about these terms.) Investors need information that helps them assess the company's profitability.
  2. **Creditors** – banks, suppliers and others who have extended financing to the business. These parties have also contributed cash and other assets (such as inventory items, equipment, and supplies) to the business on credit terms. They are not owners, and they expect to be paid according to the terms of their agreements with the company. Creditors need information that helps them assess the company's liquidity position (its ability to make these payments to them).
  3. **Managers** of the business – employees who must make decisions about operating the business. Managers must be concerned about profitability and liquidity.
- C. These primary users of accounting information may all be viewed as **stakeholders** in the business. That is, they all have an economic interest in the performance of the business and will benefit if the business achieves its profitability and liquidity goals. But in addition to these three primary users of accounting information, there are many others:
1. Regulatory agencies, the tax authorities, trade unions, job-seekers, customers, suppliers, competitors – all need the information the accounting system provides.
  2. Accounting reports, though, are directed at meeting the needs of the three primary users. It is assumed that if the information needs of

investors, creditors and managers are satisfied, then the needs of these other, secondary users are also being met.

#### D. ***Financial Accounting versus Managerial Accounting***

1. Large companies are run by professional managers. In these companies, investors and creditors are “outsiders” who are not in direct control of the business. The managers are on the “inside” and in control. Therefore, we may think of investors and creditors as being ***external users*** of the accounting information, and managers as being ***internal users***. The information needs of the external users are different than the needs of internal users, and two different branches of accounting have evolved over time to address them: *Financial Accounting* and *Managerial Accounting*.
2. ***Financial accounting*** (also called ***public accounting***) is concerned with the reporting of accounting information to external users (the investors and creditors). Since customized reports cannot be created for each of the thousands and thousands of individual external users, public accounting is characterized by the publication of one set of standardized, general-purpose financial statements. These statements present the information about profitability and liquidity that investors and creditors need to know, and they do it in a standard format that is consistent from company to company.
3. ***Managerial accounting*** (also called ***private accounting***) is concerned with the internal reporting of information to managers inside the organization. Since there are a limited number of managers to report to, and since different managers have different information needs, private accounting is characterized by the preparation of specialized reports that are “custom-tailored” to meet the needs of a specific manager or group of managers.

E. ***Accounting Matters!*** If you have taken an Economics course, you know that all societies must deal with the problem of limited economic resources. That is, there are only so many factories, so many workers, and so many materials available that can be used to produce the goods and services that society needs. This means that the amount of goods and services that a society can provide to its citizens is limited, and decisions must be made regarding which goods and services should be produced and the best way to produce them.

1. In socialistic or communistic countries, many of these choices are made by government planners.

2. In a democratic free-market system, most of these choices are determined by individual citizens. It works this way:
  - a. Individual companies are free to use economic resources to produce any type of good or service they feel they can profitably sell to consumers.
  - b. Consumers are free to shop around among the goods and services that are available to them, and purchase those that best satisfy their needs.
  - c. Consumers always try to “get more for less.” That is, we all select the product or service that we believe gives us the greatest benefit for the lowest cost.
  - d. Therefore, a company operating in a free market economy will be profitable only if it (1) produces the goods and services that consumers want, and (2) does so at the lowest possible cost. In other words, to be profitable, a company must make efficient use of society’s limited stockpile of economic resources, and it also must use them to produce the goods and services that are valued in that society. Companies that operate inefficiently or that produce things that are not of value to the consumer do not operate profitably and soon go out of business. The companies that are left are those that do produce the goods and services that are valued by society and do so in an efficient manner.
3. ***This is why accounting matters.*** If investors and creditors have access to reliable accounting information, they will be able to identify the companies that are operating profitably and the companies that are not. Creditors and investors will not invest in unprofitable companies, so money will flow out of the companies that cannot use resources efficiently or that do not produce the goods and services that consumers value. The money will flow into the businesses that can use resources efficiently and that do produce the things that are valued.
4. The end result will be a very beneficial one for any society: limited economic resources will tend to be used in the most efficient manner possible to produce as many of the goods and services as it is possible for us to have. But this can only happen if investors and creditors are given good, reliable accounting information that

allows them to accurately determine which companies are profitable and which are not.

5. Our conclusion? Accounting isn't just about "bean counting." It is a function that is vital to a society's well-being. Now that you understand this, you might want to go out and find an accountant today, and give that person a big hug!

F. ***Professional Certification in Accounting.***

Professional accountants often decide that it is beneficial to join a professional accounting organization and become *certified* by the organization. There are two primary organizations and certifications in America that you should know about. Other countries have similar types of accounting certification programs.

1. Managerial accountants may join the ***Institute of Management Accountants*** and become ***Certified Management Accountants***. In order to earn the **CMA**, candidates must have completed a bachelor's degree and must pass a rigorous series of examinations. You can learn more about the organization and the CMA by entering the following address in your browser:  
[http://www.imanet.org/ima\\_student\\_programs/student\\_membership.aspx](http://www.imanet.org/ima_student_programs/student_membership.aspx).
2. Public accountants may join the ***American Institute of Certified Public Accountants*** and become ***Certified Public Accountants***. To earn the **CPA**, candidates must have completed 150 credit hours of college coursework and must pass another series of rigorous examinations. To learn more about the AICPA and certification, you are encouraged to visit the Illinois Society of Certified Public Accountants' "Future CPA" web page for students at: <http://www.futurecpa.org/futurecpa/>.
3. You should understand that certification and licensing are not required in order for persons to work in accounting positions. Having the CPA or CMA certificate is very beneficial to an individual pursuing a career in accounting, but many persons work in accounting fields without certification.
4. If you are interested in seeing what ***salary levels*** in accounting (or other fields) are like, a site that contains several links to various career resources is the US Department of Labor's "Occupational Outlook" site at <http://www.bls.gov/oco/home.htm>.

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## IV. Business Types

- A. While many of the topics covered in this course do apply to individuals and non-profit organizations, our focus will be on accounting for businesses.
- B. Businesses can be classified into three basic types:
1. **Manufacturing companies** use workers and equipment to produce goods from raw materials. Examples: Volkswagen, Caterpillar, General Mills.
  2. **Merchandising companies** (wholesale and retail companies) purchase goods from manufacturers and market them to consumers. Examples: Wal-Mart, Home Depot, Supervalu.
  3. **Service companies** deliver services, not goods, to consumers. Examples: United Parcel Services, United Airlines, travel agencies, law firms, dental and medical practices, plumbers, etc.
- C. **The Legal Form of the Business.** In later chapters you will learn much more about the **legal forms** that businesses may take in America. Here, we are interested in knowing just a few basic facts about them. Businesses can be organized along one of four basic legal forms:
1. **Sole Proprietorships** are owned by a single owner (a sole proprietor) who is responsible for all business debts. Because only one person guarantees the business debts, it may be difficult to obtain financing so that the business can grow. Most small businesses are sole proprietorships.
  2. **Partnerships** are owned by two or more owners. Since more than one individual is responsible for business debts, and since more than one owner can make contributions to the business, a greater amount of financing is available to the business.
  3. **Corporations** are legal entities formed under state laws. There are many “stockholders” who all have ownership interest in the corporation. Since there are so many owners, financing can be obtained much more easily than in any other business form. Most large businesses are organized as corporations.



4. **Limited liability corporations (LLC's)** have characteristics of both partnerships and corporations.

## V. Business Ethics

- A. Persons engaged in any professional activity are certain to encounter ethical dilemmas. Certainly, the news stories have been full of stories about failed companies and ruined stockholders where fraud on the part of the business and its executives played a part.
- B. Behaving ethically means, essentially, making decisions based upon what is best for “the common good.” Rather than do what is best for ourselves without regard for the way others will be affected, we should attempt to achieve the greatest good for the most people through our chosen actions. You may want to pursue these issues further by visiting the [Ethics Resource Center](#), [www.ethics.org/](http://www.ethics.org/).
- C. In general, businessmen and businesswomen do behave ethically, but there are always exceptions to the rule and you will, at some point in your career, encounter situations in which your ethics will be put to the test. You are encouraged to have a strategy in place that will help you through these challenges.
  1. Do not let yourself fall into the habit of accepting what seem to be “little” slips in ethical behavior. They can put you on the proverbial “slippery slope” and culminate in major career problems.
  2. Think about the long-term effects of your actions upon your career, and don’t succumb to pressure to do something you know is wrong because its only a “one-time” thing and you want to please your clients or co-workers.
  3. Be ready to accept negative consequences for your unwillingness to behave in an unethical manner. Some people have felt they had to resign their jobs because of unethical demands that were placed upon them.

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### [Audio Lecture MP3 Podcast](#)

[Click here to play or to download a voice narration that accompanies the sections below.](#)

## Part II – Learning To Do Accounting

### VI. What Do Accountants “Account” For?

- A. The answer to this question is very simple. In general, accountants keep track of everything that is in the business that has value (its assets), and they keep track of who put it there (its equities). This means that accountants “account for” only two things: a business’ **assets** and its **equities** (defined below).
- B. If this is what accountants do, then any time an event occurs in the life of the business that changes the business assets and equities (an event that causes assets and equities to change is called a **transaction**), the accountant must *record* the changes that have occurred. This is done so that later on, when information about the assets and equities is needed, it will be available. Therefore, the work of the accountant can be summarized as follows:
- (1) Accountants record business transactions on a daily basis, as they occur, so that...
  - (2) at a later date (the end of the accounting period), they can process their records and...
  - (3) ...prepare reports that list the current assets and equities of the business and that summarize all the things that happened that caused changes in them.

And that’s “it.” That’s all that accountants do!

#### [Video Lecture](#)

*This video summarizes the conceptual basis for all the accounting procedures that will be presented in our course. Some students are “visual learners,” and a video lecture format works well for them. Some students learn well by reading.*

*After you read through the section below, click here to play or to download the video: <http://youtu.be/Wu6bUFWaNZo>.*

#### C. **Important Definitions**

1. **Assets** are the *resources* the business *owns* and uses to carry out its operations. *An asset benefits the business at the present time and will*

*continue to provide benefits in the future.* Therefore, when payments are made for things that provide future benefits to the business, the accountant records an increase in *assets*. Payments for things that do not provide future benefits are recorded as **expenses**.

For example, if a case of toner cartridges for the office printer are purchased by the business, they will be recorded as business assets. This is because they will benefit the business today and well into the future. Payment of last month's light bill cannot be recorded as an asset, since there is no future benefit that is obtained from the payment. The mere fact that we paid for last month's lighting does not mean that we won't have to pay for today's lighting when the next bill comes.

This distinction between assets and expenses may seem to be understandable, but it is incomplete and we need to add something to it that will probably mess you up. Remember the toner cartridges that were recorded as assets? What happens when they have all been used up and there is no future benefit left? When a business asset loses its ability to provide benefits, it ceases being an asset and becomes an expense!

Is your head spinning? A lot of the concepts in Accounting are complicated ones, and they have lots of moving parts. You won't be able to understand them as well as you need to the first time you read about them, so it will be necessary to re-read paragraphs and to really think about what you're reading. Right now, it is important that you be able to distinguish between assets and expenses when you record transactions. You won't be able to begin doing accounting until you can, so study the following examples carefully. (And re-read the paragraphs above, if necessary.)

**Example.**

*Suppose you decide to open a shoe store. What resources do you need to make your store a success?*

*Obviously, a shoe store cannot operate without an inventory of shoes to sell. The shoes must be housed someplace, so a building will be required. They also must be displayed, so shelving of some kind is necessary. A cash register may not be absolutely required, but it is helpful in running the business. Cash is needed to make change, pay expenses, and buy other assets. Furnishings, stools, and so on also contribute to the business' ability to sell shoes and make profits.*

*These things are all assets because they benefit the business, and once the business has them they are there to be used today, tomorrow, and the next day, until they are eventually used up and have to be replaced. At that time, the items cease to be assets. After they lose their ability to benefit the business any longer, they become an **expense**.*

*In a similar vein, if the shoe store writes a check to pay its employees, its electricity bill or its telephone bill, it is not purchasing an asset. That is because paying last period's bill does not produce a future benefit for the company. The employees will not work next week for free simply because they were paid*

for last week's work. Paying last month's light bill does not mean that electricity can be used this month without having to pay again. Therefore, these transactions represent the payment of an **expense**, not the purchase of an **asset**.

**Think of it this way...**

Office copiers, delivery vans, and even buildings eventually wear out. Other assets, like supplies, are eventually used up. Once their ability to continue to benefit the company on into the future is lost, these assets become expenses. Understanding the difference between assets and expenses can be a little challenging at first, but the key is to focus on the concept of "future benefit." If you are at a carnival and have a dollar in your pocket, you have an asset because the dollar can be used to buy anything you choose to spend it on. If you buy a ticket for a ride with the dollar you still have an asset, but it is in the form of a ticket rather than cash. You exchanged the cash asset for a "ticket asset." The ticket is an asset because it allows you to go on the ride when you are ready to do so. It provides you with a future benefit.

Once you do go on the ride and the ticket has been punched, the benefit will have been consumed. The ticket no longer has any value to you or anyone else because its future benefit has been lost. The asset, which began as a dollar bill and was then converted into another asset, a ride ticket, has now ceased being an asset and has become an expense. You have a net loss of \$1 for the evening, and unless you have a few other dollar bill "assets" in your pocket it will be time to go home!

2. The discussion above was complicated enough, but we're not done with our definition yet! In addition to providing future benefits, **the item must be owned** in order to be classified as an asset. For example, if an automobile is purchased for use in a business it is recorded as an asset. If the automobile is leased, it is not. In both cases the current and future benefits to the business are the same, but a *leased car is not owned* by the business.

Legal ownership (legal title) passes to the buyer of an asset when the buyer takes delivery of the asset. It does not matter whether the asset has been paid for or not. If an asset is acquired "on account" and payment has not been made, legal ownership still passes to the buyer when the buyer takes possession of the asset. Therefore, if the shoe store places an order for more shoes, an asset does not exist until the shoes arrive. When they do arrive, they are recorded as assets whether the business has paid for them or not.

3. **Equity** simply means "ownership," so **equities** are the ownership claims of the investors and creditors against the business assets. The owner's claim is called **Owner's Equity** in a sole proprietorship. In a corporation, the claims of the owners are referred to as the **Stockholders' Equity**. The claims of creditors (the creditors' equity) are called **Liabilities**. Since the accountant's job is to keep track of assets and equities, we could say that *the*

accountant simply keeps track of the business assets and the parties who have ownership interests in those assets (in other words, the business' liabilities and its owner's equity).

**Think of it this way...**

Suppose Melinda's parents are trying to teach her about saving money and earning interest. Melinda agrees to put her savings of \$40 in a bank savings account so she can earn interest until later in the year, when it will be time to spend the money on a planned family vacation trip. They go to the bank to open a savings account for Melinda, but the bank requires a minimum deposit of \$100. Since Melinda only has \$40, her parents "loan" her the additional \$60 needed to open the account. Melinda's savings account balance is now \$100. In other words, she has \$100 of **assets** in her account. However, she "owns" only \$40 of the \$100, and "owes" the remaining \$60 to her parents. Therefore, she has \$40 of equity in the bank account balance herself (her **owner's equity** in the account is \$40), and her parents have \$60 of creditor's equity in the bank account (Melinda's **liabilities** are \$60).

- D. Because all the assets in a business belong to either the owner(s) or to creditors, the total business assets must always be equal to the total equities in the business (that is, the assets are equal to the total ownership claims of owners and creditors against the assets). This fact can be expressed mathematically as shown below. It is called the **Accounting Equation**. For a sole proprietorship, it is:

$$\text{TOTAL ASSETS} = \text{TOTAL LIABILITIES} + \text{OWNER'S EQUITY}$$

Or, if the business is a corporation, it is:

$$\text{TOTAL ASSETS} = \text{TOTAL LIABILITIES} + \text{STOCKHOLDERS' EQUITY}$$

**Does This Help?**

It may be helpful to think of the business as an empty basket, into which owners and creditors place assets. The assets they place there are still owned by these parties, so their ownership interests (the liabilities and the owner's equity) must always be equal to the value of the assets in the basket! In the example above, Melinda and her parents together placed \$100 of assets in the bank account "basket." Melinda owns \$40 of the \$100; her parents own the rest. Therefore, the ownership of the \$100 bank account is as follows:

$$\$100 \text{ (Total Assets)} = \$60 \text{ (Parent's portion)} + \$40 \text{ (Melinda's portion)}$$

**or**

$$\$100 \text{ (Total Assets)} = \$60 \text{ (Liabilities)} + \$40 \text{ (Owner's Equity)}$$

## VII. Recording Business Transactions

The remainder of this module introduces you to the mechanical aspects of Accounting. You will begin to actually “do” accounting, instead of just learning about the subject.

### *Are You an Accounting Masochist?*

*We have now described the process of accounting and we introduced concepts that are important for you to understand regarding accounting. In the sections below, though, we will begin to actually DO accounting. Then things get serious.*

*It will be very important for you to stay focused and master the entries that are illustrated in the sections below. That’s just the way it is with Accounting. You will need to really understand the remainder of this module before you move on into Module 2. The procedures introduced in Module 2 are all based on the transactions and statements that are illustrated below.*

*So, become an accounting masochist. Do all the work you need to do in order to really learn the material in each module. You will need to have a strong foundation in place, so that you can build on it in later modules.*

*You won’t do this all in one sitting. And it won’t be an easy thing to accomplish. Study the module, play the videos more than once, work the practice problems at the ends of the modules, keep turning it over and over in your mind - and don’t move on until you “know that you know.” It’s a case of “wax-on, wax-off.” (This is from the movie, “The Karate Kid,” in which Mr. Miyagi says something to Daniel that applies so well to Accounting students that I have to share it with you: <http://youtu.be/3PycZtfns U>.)*

- A. *Transactions* are events that change a business’ assets, liabilities, and/or stockholders’ equity. Since accountants must keep track of assets, liabilities and stockholders’ equity, every transaction must be recorded in some way. The easiest way to do this is to set up a table with a column for each asset, each liability, and for the stockholders’ equity. These columns then become the asset, liability and stockholders’ equity **accounts** that are maintained for the business.

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
						=				
						=				
						=				

- B. As transactions occur, the changes they produce in each of the accounts can be entered as positive amounts (increases in the account) or negative amounts (decreases). Later, the columns can be added up to determine the **balances** for each of the asset, liability and the stockholders' equity accounts, and this information can then be reported to any of the users (investors, creditors or managers) who need it.

Here is some good news for the accounting masochists among us: **The section below contains a long, boring example that you will have to read and re-read until you feel that you have completely mastered it.** ☺

Why do you need to do this? Up to this point we have been "talking about" accounting, and in the section below we will be "doing" accounting. What is the difference between talking about accounting and actually doing accounting?

- Actual accounting is progressive – each new section builds on the one before.
- Actual accounting is unforgiving – if you do not master a particular section as you move through these modules, you will not have the foundation in place that you will need to have in order to make sense of the next section.
- Actual accounting problems (especially long ones) are not much fun to study, and even less fun to work.

Therefore, to be successful, you will need to become a little bit of an accounting masochist. You will have to be prepared to focus as you read, stay "tuned in," and resign yourself to working long, boring practice problems. You'll simply have to do that in order to learn the material.

### [Video Lecture](#)

To help you through the long, boring example below, I have prepared two video lectures that "walk you through" the solution. After all, seeing and hearing is sometimes better than just reading. After you read through the section below, click here to play or to download the videos :

Part I (Transactions A through F): <http://youtu.be/h-OajEINdsc>

Part II (Transactions G, H and statements): <http://youtu.be/w62Y09-Cg20>

- C. The remainder of this section revolves around a comprehensive practice problem. We will account for a business, recording transactions in the accounts in table form as illustrated above. *This illustration is a very important one since it contains every type of business transaction that you will encounter in your introductory accounting course.* If you fully understand why these transactions are recorded as they are, you will be fully prepared to advance to Module 2 (and toward a career in Accounting). Do not move on to Module 2, though, until you have mastered these entries. Let's now illustrate each of these transaction types.

D. **Transactions that increase stockholders' equity.** There are only two:

1. **Contributions** of cash or other assets into the business by the stockholders. These contributions increase the business assets and, since they belong to the stockholders, they also increase stockholders' equity. (Note: *stockholders' equity* in a corporation is recorded in two accounts: *Common Stock* and *Retained Earnings* account; but *owner's equity* in a sole proprietorship is recorded in a single *Capital* account.)

Suppose Fred Tall starts a corporation, Fred's Bookkeeping Service, Inc., on December 1. Common stock is issued and the stockholders (Fred and his mother) contribute \$10,000 of cash and \$500 of supplies to the business in exchange for shares of stock. *Contributions of assets to the corporation are recorded in the Common Stock account.* We would record this as follows:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
<b>D-1</b>	<b>+10,000</b>		<b>+500</b>			=			<b>+10,500</b>	
						=				
						=				

2. The **recording of revenue** in the accounting system also increases stockholders' equity. After all, the owners "get" all the revenue earned in the business – that's the reason they went into business in the first place!
  - a. The Accounting rule regarding revenues is as follows: *revenues are recorded when they have been earned.* Revenues are *earned* when services have been provided to a customer (the work is completed), or when goods are delivered and the legal title to the goods transfers to the customer (this happens at the "point of sale," when the customer takes physical possession of the goods). It does not matter whether the customer has made payment or not.

**A Comment:** This last point often confuses students. It seems "wrong" to record revenue when you don't even know whether you'll ever collect it!

Remember, though, that when revenue is earned *on account*, with the customer being billed for payment at a later date, the customer is still *obligated to pay*. The business



may not have cash today, but it will a little later on. Therefore, the “revenue recognition rule” tells us that revenue is to be "recognized" (recorded in the accounts) when it has been earned. Cash doesn't matter at all.

Whether cash is received or not, recording revenue increases assets and increases the stockholders' equity. *Revenues are recorded in the Retained Earnings account.* For example, suppose Fred Tall does a job and immediately collects \$200 from the customer. This revenue would be recorded as follows:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
<b>D-2a</b>	<b>+200</b>					=				<b>+200</b>
						=				

**Note:** If you are a high school or college student, your textbook illustrations probably differ from what you see above. You will most likely see an stockholders' equity section that is divided up into many different accounts, such as is shown below. We will begin using multiple stockholders' equity accounts in Module 2, but we are avoiding them here in Module 1. Why? Because we want you to understand what stockholders' equity represents, and what kinds of transactions affect stockholders' equity. Using so many accounts will confuse you more than help you. Trust me on this one. I'll include these alternate entries for you as we go along, just so we will match your textbook, but try to ignore them. Let's keep your focus on stockholders' equity in general, and using a single Capital account is the best way to do that. Your mission here in Module 1 is to develop a strong conceptual understanding regarding what assets, liabilities and stockholders' equity represent, and the kinds of business transactions that affect them.

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			<b>+200</b>						

- b. If Fred completes another job and bills the customer for future payment, the revenue is still recorded. This is appropriate because the work was done and the revenue was earned. This time, instead of a cash asset, Fred receives the customer's *promise* to pay in exchange for the services provided. Fred's legal right to collect this payment represents an asset called *Accounts Receivable*. Eventually the cash will be collected, and then what is presently an account receivable asset will become cash.

For example, if Fred finishes another job for a customer and bills her for \$1,500 (no payment has been received yet), the entry would be:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
<b>D-2b</b>		<b>+1,500</b>				=				<b>+1,500</b>

*Note: If you are a high school or college student, and your textbook illustrations divide stockholders' equity up into many different accounts, your book will record the stockholders' equity portion of this transaction as follows:*

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			+200						
=			<b>+1,500</b>						

E. **Transactions that decrease stockholders' equity.** There are only two types of transactions that decrease stockholders' equity:

1. **Dividend payments** of cash or other assets from the business to the stockholders for their personal use (non-business related) decrease stockholders' equity. More specifically, dividends reduce the Retained Earnings account. They also decrease assets. For example, if Fred and his mother take \$1,000 of cash dividends out of the business to use for a vacation trip, the transaction would be recorded as shown below. Note that the dividend is recorded very much like the initial contribution, except that the amounts are all negative values. It's a case of "assets in, equity up - assets out, equity down."

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
<b>E-1</b>	<b>-1,000</b>					=				<b>-1,000</b>

*Note: If you are a high school or college student, and your textbook illustrations divide stockholders' equity up into many different accounts, your book will record the stockholders' equity portion of this transaction as follows:*

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			+200						
=			+1,500						
=		<b>-1,000</b>							

2. Recording an **expense** in the accounting records also reduces stockholders' equity. After all, the owner "gets" the revenue earned in the business, so to be fair the owner also has to "pay" the expenses! If the business is profitable the revenues will be greater than the expenses, resulting in an overall increase in the stockholders' equity equal to the profit that was earned.

Expenses arise when cash is paid by the business or when liabilities are incurred for things that do *not* provide future benefit to the business.

- a. Remember our definition of *assets* – they are things that are *owned* and that *provide future benefits* to the business. If a payment is made for something that provides no future benefit, we can't record an asset – we must record an expense, instead. Expenses are also incurred when assets are used up and lose their ability to benefit the business in the future.

For example, suppose Fred pays the \$100 monthly telephone bill. This payment is being made for telephone usage during the previous month, so Fred is paying for *past* usage and not future usage. Paying today does not mean that Fred can use the telephone next month without having to pay again at the end of that month. Therefore, an asset has not been purchased; instead, an expense has been incurred. Expenses reduce stockholders' equity, and this one will be recorded as follows:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
<b>E-2a</b>	<b>-100</b>					=				<b>-100</b>

**Note:** If you are a high school or college student, and your textbook illustrations divide stockholders' equity up into many different accounts, your book will record the stockholders' equity portion of this transaction as follows:

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			+200						
=			+1,500						
=		-1,000							
=						-100			

- b. Suppose Fred now receives a \$200 utility bill that is due next month. This bill has been received for utility usage during the previous month, so an expense has again been incurred that Fred is obligated to pay; but not until next month. Should the expense be recorded now?

Recall that revenues are recorded when they have been earned, whether they have been collected yet or not. Similarly, accounting rules tell us that *expenses are to be recorded when they have been incurred, whether they have been paid or not.*

Since an expense must be recorded before it has been paid, it will be necessary to record an increase in liabilities along with a decrease in stockholders' equity. The liability represents Fred's obligation to pay his utility account balance, and the account title used is *Accounts Payable*:

ASSETS					=	LIABILITIES		STOCKHOLDER'S EQUITY		
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
E-2a	-100					=				-100
<b>E-2b</b>						=	<b>+200</b>			<b>-200</b>

**Note:** If you are a high school or college student, and your textbook illustrations divide stockholders' equity up into many different accounts, your book will record the stockholders' equity portion of this transaction as follows:

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			+200						
=			+1,500						
=		-1,000							
=						-100			
=					<b>-200</b>				

- c. Expenses are also recorded when assets (for example, supplies) are used up and lose their ability to provide future benefits to the business. Suppose \$50 of the supplies are consumed in conducting the daily operating activities of the business. Since the supplies have been used, the balance in the *Supplies* asset account must be reduced. What was once an asset has become an expense,

so the stockholders' equity will also be decreased when the expense is recorded:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
E-2a	-100					=				-100
E-2b						=	+200			-200
E-2c			-50			=				-50

**Note:** If you are a high school or college student, and your textbook illustrations divide stockholders' equity up into many different accounts, your book will record the stockholders' equity portion of this transaction as follows:

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			+200						
=			+1,500						
=		-1,000							
=						-100			
=					-200				
=				-50					

**F. Transactions that change assets without changing liabilities or stockholders' equity.** There are only three:

1. The purchase of one type of asset in exchange for some other business asset (cash usually, but there might be another asset given in exchange for the new one).
2. The sale of an unneeded business asset in exchange for another asset (usually cash).
3. The collection of an Account Receivable.

For example, suppose the following transactions occur:

- (a). Fred purchases equipment, paying \$2,000 of business cash to obtain the equipment.
- (b). He then sells \$100 of unneeded supplies to another business, receiving \$100 in cash.
- (c). Finally, he collects \$200 of the account receivable balance.

These transactions would be recorded as follows:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
E-2a	-100					=				-100
E-2b						=	+200			-200
E-2c			-50			=				-50
F-4a	-2000			+2000		=				
F-4b	+100		-100			=				
F-4c	+200	-200				=				

### Video Lecture 2

Video lecture 2 describes the transactions recorded in F-4b, F-4c, G, and H.

Part II (Transactions F-4b through H and statements): <http://youtu.be/w62Y09-Cg20>

G. **Transactions that increase business liabilities.** There are just two:

1. *Acquiring assets from creditors* for which the business must pay at a later date (examples: purchase of supplies on account, or borrowing cash from a bank by signing a promissory note). These transactions increase assets and increase liabilities.

Suppose that (a) Fred buys a \$5,000 computer system on account, agreeing to pay in 30 days. Suppose also that (b) Fred borrows \$3,000 from his bank, signing a note that must be paid in 6 months. The transactions would be recorded as follows:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
E-2a	-100					=				-100
E-2b						=	+200			-200
E-2c			-50			=				-50
F-4a	-2000			+2000		=				
F-4b	+100		-100			=				
F-4c	+200	-200				=				
G-1a					+5000	=	+5000			
G-1b	+3000					=		+3000		

Note that a separate liability account, *Notes Payable*, has been used to record the bank loan. It is appropriate to use two different liability accounts because there is a difference between open account balances that must be paid in a few days (*Accounts Payable*) and a note. The note is usually long-term, and interest must be paid on the outstanding balance. An open account balance is usually short-term, and no interest is charged.

2. *Receiving bills for services* that were used in the business (telephone, electricity, water, etc.). These bills are due for payment at some later date, and, as previously explained, they represent expense transactions since the service was used and the expense was incurred. Recording them requires an increase in liabilities and a decrease in stockholders' equity. This kind of liability transaction was previously illustrated in E-2-b above.

H. **Transactions that can decrease business liabilities.** There are just two:

1. *Payment of the amount owed to a creditor* decreases a liability account balance and also decreases the *Cash* account. Examples include the payment of an *Accounts Payable* balance, or the payment of a bank loan (previously recorded in *Notes Payable*).

For example, if Fred pays the \$200 utility bill that was recorded previously in transaction E-2-b, the payment would be recorded as follows:

ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
E-2a	-100					=				-100
E-2b						=	+200			-200
E-2c			-50			=				-50
F-4a	-2000			+2000		=				
F-4b	+100		-100			=				
F-4c	+200	-200				=				
G-1a					+5000	=	+5000			
G-1b	+3000					=		+3000		
<b>H-1</b>	<b>-200</b>					=	<b>-200</b>			

2. There is another kind of transaction that will reduce a liability without reducing assets, and we should mention it to be complete. It pertains only to a special type of liability called an *Unearned Revenue*, which will be introduced in Module 3. Unearned revenue liabilities are reduced by performing services and earning revenue (don't worry about this at the present time).
  3. And just to be totally complete, there is actually a third possibility but it would occur very rarely. Forgiveness of a debt by a creditor (this is NOT something we should expect to see very frequently) would increase stockholders' equity and decrease liabilities.
- I. These general types of transactions are fundamental to the accounting process. You will see them recur again and again in the remainder of your introductory accounting course. The good news? That's all there are! These transactions types really do represent all the possible kinds of entries that you will encounter your coursework. If you understand them all, and why they are recorded as they are, consider yourself well prepared to move on to Module 2 (and even on toward a CPA certificate). Your "accounting foundation" is in place and you may now safely build upon it!

**Helpful hint:** Remember that "accounting is learned by doing accounting." A practice exercise is attached as a supplement to this module, and you are encouraged to work through it on your own just to reinforce your learning. The answers to the exercise are also provided so that you can check your work. But no peeking until you've finished the exercise! ☺

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## VIII. Public Reporting & Financial Statements

- A. The information about assets, liabilities, and stockholders' equity are summarized at the end of the accounting period and then reported to the users of the information in standardized financial statements. Major corporations release these reports quarterly, but sole proprietorships usually report on an as-needed basis.

Suppose it is now December 31, and Fred decides it is time to prepare the financial statements. To summarize the information that has been recorded for Fred's Bookkeeping Service, Fred will need to add up the columns in the table and determine the ending balances in each of the accounts:



ASSETS						=	LIABILITIES		STOCKHOLDER'S EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
D-1	+10,000		+500			=			+10,500	
D-2a	+200					=				+200
D-2b		+1,500				=				+1,500
E-1	-1,000					=				-1,000
E-2a	-100					=				-100
E-2b						=	+200			-200
E-2c			-50			=				-50
F-4a	-2000			+2000		=				
F-4b	+100		-100			=				
F-4c	+200	-200				=				
G-1a					+5000	=	+5000			
G-1b	+3000					=		+3000		
<b>H-1</b>	<b>-200</b>					<b>=</b>	<b>-200</b>			
<b>Bal.</b>	<b>10,200</b>	<b>1,300</b>	<b>350</b>	<b>2000</b>	<b>5000</b>	<b>=</b>	<b>5000</b>	<b>3000</b>	<b>10,500</b>	<b>350</b>

**Note:** If you are a high school or college student, and your textbook illustrations divide stockholders' equity up into many different accounts, your book will show balances in multiple stockholders' equity accounts:

=	STOCKHOLDERS' EQUITY								
=	Common Stock	Retained Earnings	Services Revenue	Supplies Expense	Utilities Expense	Telephone Expense	Wages Expense	Rent Expense	Advertising Expense
=	+10,500								
=			+200						
=			+1,500						
=		-1,000							
=						-100			
=					-200				
=				-50					
<b>Bal.</b>	<b>10,500</b>	<b>-1,000</b>	<b>1,700</b>	<b>-50</b>	<b>-200</b>	<b>-100</b>	<b>0</b>	<b>0</b>	<b>0</b>

B. There are 4 major financial statements (or reports) that are prepared and made available to the public: the **balance sheet**, the **income statement**, the **statement of stockholders' equity**, and the **statement of cash flows**.

1. The **Balance Sheet** lists the balances that exist in the various asset, liability, and owner equity accounts on the date the statement is prepared. The statement is called a "balance" sheet because the total assets must equal (or "balance" with) the sum of the total liabilities and owner's equity.

The *balance sheet* for Fred's Bookkeeping Service is presented on the following page:

<b>Fred's Bookkeeping Service, Inc.</b>			
<b>Balance Sheet</b>			
<b>December 31, 20XX</b>			
<b>Assets:</b>		<b>Liabilities:</b>	
Cash	\$10,200	Accounts Payable	\$ 5,000
Accounts Receivable	1,300	Notes Payable	<u>3,000</u>
Office Supplies	350	Total Liabilities	\$ 8,000
Office Equipment	2,000	<b>Stockholders' Equity:</b>	
Computer	5,000	Common Stock	10,500
		Retained Earnings	<u>350</u>
		Total Stockholders' Equity	<u>10,850</u>
<b>Total Assets</b>	<u><u>\$18,850</u></u>	<b>Total Liabilities and Stockholders' Equity</b>	<u><u>\$18,850</u></u>

2. The ***Income Statement*** summarizes the revenues and expenses recorded during the accounting period, and subtracts expenses from revenues to determine net income (or net loss). The *income statement* for Fred's Bookkeeping Service is as follows:

<b>Fred's Bookkeeping Service, Inc.</b>		
<b>Income Statement</b>		
<b>For the month ended, December 31, 20XX</b>		
<b>Revenues:</b>		
Bookkeeping Revenues		\$ 1,700
<b>Expenses:</b>		
Telephone Expense	\$ 100	
Utilities Expense	200	
Supplies Expense	<u>50</u>	
Total Expenses		<u>( 350)</u>
Net Income		<u>\$ 1,350</u>

3. The ***Statement of Changes in Stockholders' Equity*** summarizes the transactions that occurred during the period that changed the balance of stockholders' equity. Since only contributions, dividends, revenues, and expenses can change the stockholders' equity, the statement starts with the balance of stockholders' equity at the beginning of the period, adds contributions and net income (if any), then subtracts withdrawals and the net loss (if any), to determine the balance of owner's equity at the end of the period.

The *statement of changes in stockholders' equity* for Fred's Bookkeeping Service is as follows:

<b>Fred's Bookkeeping Service, Inc.</b>		
<b>Statement of Stockholders' Equity</b>		
<b>For the month ended, December 31, 20XX</b>		
Fred Tall, Capital, December 1, 20XX		\$ 0
Add: Investments	\$ 10,500	
Add: Net Income	<u>1,350</u>	
Total	\$ 11,850	
Subtract: Dividends	<u>- 1,000</u>	
Increase in Stockholders' Equity		\$ <u>10,850</u>
Fred Tall, Capital, December 31, 20XX		\$ 10,850

4. **Statement of Cash Flows** – This statement summarizes the cash inflows received by the company during the period and the cash outflows that occurred. This statement is examined in detail in the Managerial Accounting course tutorial.

## IX. Financial Ratios

- A. As we know, investors and creditors are concerned about the business' liquidity and profitability. Industry news stories, gossip and rumors are all used to evaluate a company, but the most detailed and objective information regarding liquidity and profitability is contained in the financial statements. Therefore, the financial statements are extremely important, since investors and creditors use them to measure the company's liquidity and profitability.
- B. Rather than simply viewing the account balances by themselves to evaluate the company, it is common for users to compare one balance with another. The most direct way to compare balances is to divide one by another, calculating a **ratio** value. The ratio value often provides insight that an absolute number cannot.
- C. As we proceed through the tutorials, commonly used financial ratios will be presented to you. In this module, we will introduce two financial ratios that are used to evaluate liquidity (the **debt ratio** and the **debt-to-equity ratio**), and two more that measure profitability (the **return on assets ratio** and the **return on equity ratio**).
1. The debt ratio is calculated by dividing the total liabilities of the business by its assets:

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

The debt-to-equity ratio is calculated by dividing the total liabilities of the business by its stockholders' equity:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Stockholders' Equity}}$$

## 2. **Interpretation**

Both of these ratios are used to analyze the company's liquidity position, and each ratio measures the amount of debt that the company has taken on. This is a good way to evaluate liquidity since a firm that has borrowed heavily will have a large amount of interest that must be paid each period. If the company is unable to make its interest payments, it will become insolvent and possibly go bankrupt. A company with a lot of debt is also not likely to be able to borrow additional money if it is needed, since creditors will view the business as too illiquid and the risks of bankruptcy too great to justify making additional loans.

- a. How do these ratios measure liquidity? As we know, all the firm's assets are contributed to the business either by creditors or by the owner. The "debt ratio" is a relative measure of the amount contributed by the creditors compared to the total amount contributed by both creditors and owners (which is equal to the dollar value of the total assets). A ratio value of 100% would be impossible, since it would indicate that all the assets were contributed by creditors with no owner investment at all. A ratio value of 50% means that half of all the money invested in the company came from the creditors, and the other half came from the owner. A ratio value of 25% means that one fourth of all the money invested in the company came from the creditors and the other 75% from the owner. *The higher the ratio value, the more debt there is, and the less liquid the company will be.*
- b. The "debt to equity" ratio is similar to the debt ratio. It is a relative measure of the amount obtained from creditors compared to the amount invested by the owner. A ratio value of 1 means that just as much was borrowed from creditors as

was invested by the owners. That is, the total liabilities would equal the stockholders' equity. (Note that a debt-to-equity ratio of 1 means that the debt ratio is 50%). A debt-to-equity ratio value greater than 1 means more was borrowed from creditors than was invested by the owner (the debt ratio will be greater than 50%). A ratio value of less than 1 (with a debt ratio below 50%) means more was invested by the owner than was borrowed.

### **An Illustration...**

*Since we have prepared the financial statements for Fred's Bookkeeping Service, let's use them to evaluate Fred's liquidity. Referring to the balance sheet, we see that the total liabilities are \$8,000, stockholders' equity is \$10,850, and total assets are \$18,850. The debt ratio is 42% (8,000/18,850). The debt-to-equity ratio for Fred's Bookkeeping Service is 0.74 (8,000/10,850 = .74), or 74%. Our interpretation? Creditors have contributed 42% of the assets to the business. They have loaned the business 74 cents for every dollar that the stockholders have invested. More precisely, they have loaned the business 74% as much as Fred has contributed to it. Therefore, they have almost as much invested in the business as Fred. This is a lot of debt, relative to the stockholders' equity. Unless he has a lot of personal wealth outside the business, it will be difficult for Fred to borrow more if it is needed. Therefore, the business is probably not very liquid.*

3. The Return on Assets ratio is calculated by dividing the net income of the business by its assets:

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

The Return on Equity ratio is calculated by dividing the net income by the stockholders' equity:

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Stockholders' Equity}}$$

4. **Interpretation**

How do these ratios measure profitability? A company only invests in assets because they are needed in order to operate the business and earn a profit. A profitable company will be able to produce a lot of income from its assets, while an unprofitable company will not. In fact, an unprofitable company might have no profit at all, and have a loss instead (resulting in negative ratio values).

- a. Remember, all the firm's assets are contributed to the business either by creditors or by the owner. The "return on

assets ratio” (also called the “return on *investment* ratio”) is a relative measure of the amount that was earned from the assets compared to the total amount of assets the creditors and owner invested in the business. It is often referred to as the “ROA” or “ROI” ratio.

A ratio value of 10% means that ten cents was earned from every dollar invested *by the owner and the creditors* in all the company’s assets. This might seem like a high rate of return, since the going rate of interest on bank deposits is presently near zero. However, if other businesses are able to earn 15% or 20% on their total assets, then our company would not appear to be very profitable after all. The higher the ratio value, the more profitable the company.

- b. The “return on equity” ratio (also called ROE) is a relative measure of net income compared to the amount of assets that were invested by the owner. Since we are dividing net income by a smaller number (just the stockholders’ investment, instead of the stockholders’ investment combined with the creditor’s investment), this ROE ratio value will be higher than the ROA ratio.

A ratio value of 10% means that ten cents was earned from every dollar *invested by the owner* in the company’s assets. The higher the ratio value, the more profitable the company. Once again, an analyst would compare a company’s ROE with the ROEs from other companies in order to evaluate that particular company’s profitability.

***Illustration, Continued...***

*Let’s continue our illustration, and use Fred’s income statement and balance sheet to evaluate his business’ profitability. Referring to the income statement, we see that net income is \$1,350. Looking at the balance sheet, we see that total assets are \$18,850 and stockholders’ equity is \$10,850. Therefore, the ROA ratio is 7% ( $1,350/18,850$ ) and the ROE ratio is 12% ( $1,350/10,850$ ). Our interpretation? These rates are not very high but not so low as to imply that Fred’s business is a failure. However, if Fred has other, more profitable opportunities available to him, he may well decide to close the business down, sell the assets, and invest the cash elsewhere. Likewise, if you are an investor and Fred offers to sell you shares of stock in the business, you will think twice before making an ownership investment in it. The business is not highly profitable at present, and it is not very liquid, either.*

**X. Generally Accepted Accounting Principles.** We have now concluded our example, so we are now going stop “doing” accounting and conclude the module by talking a bit more “about” accounting. That means that mastery is no longer strictly required, so you can relax and let your attention wander a bit. ☺

- A. **GAAP** (pronounced “gap”) is the set of conventions, rules, and procedures that must be applied in recording and reporting accounting information to *the public* in the United States. Note two things:
1. There are no “rules” regarding *internal* reporting to the managers of the organization. Internal accounting and reporting (managerial accounting) is “custom tailored” to fit the needs of the managers who will use the information to make specific decisions.
  2. International accounting standards differ from US GAAP, though the differences generally pertain to more detailed and advanced types of accounting issues. The information in our tutorials for the most part applies to all countries and to the international standards.
- B. Why have GAAP? For a very good reason: without rules regarding how a business must record its transactions and prepare its financial statements, the accounting information the business reports would be meaningless! Investors would not be able to determine how profitable the business has been, and creditors would not be able to tell how liquid it is.

***Here’s an example that illustrates the problem...***

*On December 10, Jerry’s Used Furniture Shop finished stripping and re-varnishing several oak office desks. This was done because on December 5 a customer, Smith Reality Company, had promised to buy the desks but only if they were refinished. On December 6 Smith Reality made a 10% down payment, and Jerry’s began the refinishing work. As of December 31, the tables were still in a back room waiting for Smith Reality to send someone over to pay for them and pick them up. On January 5 Smith Reality did pick up the desks, but did not pay for them until January 10 because the cashier had forgotten to send a check along with the truck driver. When should Jerry record the sale of the desks? The answer to this question is important, because it will determine whether the revenue will be reported on Jerry’s income statement this year or not. If it is, Jerry’s business will appear to be more profitable than it will otherwise. When should Smith Reality record the purchase? This question is important, too, since it will determine whether Smith reports the desks on the December 31 balance sheet or not.*

*Unless there are “rules” that determine the answers to these questions, Jerry will be free to report the income whenever he feels it is best to do so, and Smith Realty can either include the desks among its assets or not. And if companies were free to make these decisions any way they wished, there would be no way for investors and creditors to*

*understand what is being reported in the financial statements*

*Fortunately, GAAP tells us when revenues and assets can be recorded in the accounting records, and you are already aware of what these rules say:*

- *Revenues are recorded when the revenue has been earned.*
- *Assets are recorded when legal title passes from the buyer to the seller.*

*Therefore, Jerry should not record the sale and Smith should not record the purchase until January 5, the day on which physical custody and legal title to the desk passes from Jerry to Smith Reality.*

*If investors know the rules laid down in GAAP and if they know that the company followed them, the income statement and balance sheet now become useful. Investors and creditors must understand how the company determined its income and how the assets were measured before they will be able to use the income statement to evaluate the company's profitability and the balance sheet to assess its liquidity. This knowledge is very fundamental to all areas of business, and it is the reason that you are required to take Accounting even if you are a Finance, Marketing, or General Business Administration major!*

C. Organizations that help develop United States and International GAAP:

1. **[Financial Accounting Standards Board \(FASB\)](http://www.fasb.org) at [www.fasb.org](http://www.fasb.org). This is the major organization responsible for establishing GAAP in the United States. The "**Statements of Financial Accounting Standards**" (SFAS's) that are issued by the FASB are the most authoritative set of rules in GAAP.**
2. The **[American Institute of Certified Public Accountants \(AICPA\)](http://www.aicpa.org)** at [www.aicpa.org](http://www.aicpa.org) influences the FASB and helps shape their SFAS's; and it does issue writings that form GAAP, but they are far less authoritative than the SFAS's.
3. The **[Government Accounting Standards Board \(GASB\)](http://www.gasb.org)** at [www.gasb.org](http://www.gasb.org) is similar to FASB, but is concerned with state and local governmental unit accounting.
4. **[International Accounting Standards Board \(IASB\)](http://www.iasb.org)** at [www.iasb.org](http://www.iasb.org) is concerned with the development of accounting standards that apply to all countries.

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**XI. Accounting Principles.** At the heart of GAAP are several fundamental concepts. In fact, all the specific rules that constitute GAAP are based upon them. They are referred to as accounting **principles**, or **concepts**, or sometimes as **assumptions**. The following accounting principles are introduced in this



module. More will be presented in later modules. You should be able to define each.

- A. **Business Entity Assumption.** A business is viewed as an entity (a unit) that is separate from its owners and from other firms controlled by the owner. Only information about this business' assets, liabilities, and stockholders' equity is recorded in the accounting records and reports for this business. The assets and liabilities of the owner, or of other businesses the owner controls, are not combined with them; therefore only information about the entity itself is reported.
- B. **Cost Principle.** All assets are recorded at cost. This means that assets are presented on the balance sheet at their original costs, irregardless of what their current appraised values might be. This is to ensure that the assets are valued *objectively* (see "objectivity concept" below) on the balance sheet, rather than allowing for subjective estimates about current value to be used.
1. Note that historical cost information is not *relevant* information for investors, bankers, and other users. After all, when making a decision about a loan, the banker doesn't care what the company's building cost 20 years ago, but what it is worth today.
  2. In cases where the cost concept is applied (valuation of most of the assets on the balance sheet), it is done so to provide reliable information at the expense of relevance. This is deemed to be better than placing subjective estimates of the asset's actual worth on the balance sheet.
  3. As we shall see in the *Elements of Accounting II* course, there are exceptions to this general rule. In cases where the actual worth of the asset can be reliably and objectively determined, we will depart from the *Cost Concept* and use other methods to value some of the company's assets.
- C. **Objectivity Principle.** Accounting records should be based upon objective (unbiased) evidence. As it pertains to the CPA's professional code of ethics, this means that the CPA must be impartial and honest. As it pertains to accounting practice, this means that the reported values for assets, liabilities, and stockholders' equity should be definite and verifiable.
- D. **Unit of Measure Concept.** The unit of measure in accounting is the dollar. Assets, liabilities and stockholders' equity are measured and reported in dollars (rather than pounds, square feet, gallons, pesos, etc.)

because this unit of measure is most meaningful for investors, creditors and managers. Only events and activities measurable in dollars are entered and recognized in a company's accounting records.

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### A Little More About GAAP...

The following is a summary discussion regarding the nature of accounting and GAAP. You will not be tested over this material, but the discussion will help you appreciate the complex nature of accounting and the need for GAAP.

The accounting process of recording transactions (“bookkeeping”) is rather straight-forward, but the theoretical considerations related to *recognition*, *valuation*, and *classification* of accounting information complicate it tremendously. Because of these issues, the rules that constitute GAAP are numerous and complex, and applying them in practice, especially when large corporations are involved, requires a great deal of professional training and judgment. This is something that the bookkeeper does not have to worry about, but that the accountant does. And it is the basis for an accounting joke:

*Q: What's the difference between bookkeeping and accounting?*

*A: If you're the client, about \$200 per hour.*

### Issues Addressed by GAAP:

- Recognition** -- At what point should an event (a transaction) be recorded? For purchases or sales of items GAAP tells us that it should (in general) occur when legal title of the item passes from the seller to the buyer. This usually occurs at the point of sale, when the item is physically taken by the buyer from the seller. However, other considerations can complicate the determination of the *recognition point* (the point at which the transaction should be recorded). Consider an example:

*Humongous Homes Corporation enters into discussions with a developer who wants the company to build houses on land the developer is trying to acquire. If the developer can get the land, the builder will have Humongous construct 200 houses on the land, at a price of \$200,000 each. This will be a very large and profitable contract for Humongous, and will definitely increase net income tremendously. Should Humongous go ahead and report this income on the current income statement now? Should Humongous wait until it is known that the developer has obtained the land? Until the homes are built? When payment is received? This question is addressed in GAAP, which tells us that, in general, revenues are recognized only when they have been earned. Therefore, Humongous should not record the sale until the homes are built and physical custody and legal title to them passes to the developer. But GAAP also allows for **partial** recognition of the revenue **before** the work is completed when a long-term construction contract is involved. Why? Because not recording revenue during the periods in which construction is ongoing will make it seem that the company is not operating profitably when it really is. Can this rule be applied in order to allow Humongous to report some of the revenue before construction is complete? If so, how should it be done? Advanced training in accounting and professional judgment is required to answer this question.*
- Valuation** -- At what *value* should the transaction be recorded? In order to provide for objective and verifiable accounting information, this is often the actual *historic cost* of the item

being recorded. However, later on we will see that other valuation bases are also used. Here is an example of this kind of valuation problem:

*Jamison Company purchased a building for \$100,000 five years ago. The appraised value for property tax determination is \$130,000. Growth has occurred in the area and the building has appreciated in value. In fact, Jamison Company was recently offered \$140,000 for the building. At what value should the building be reported on Jamison's accounting statements? The answer to this question is addressed in GAAP, which tells us that historical cost is the valuation basis that should be used for the company's assets. The appraised value and even the offer price are not acceptable valuation bases to use for the building.*

- **Classification** -- Which accounts should be used to record the transaction, and how should the account be classified in the financial statements? For accounting information to be useful to the users, it is important that appropriate accounts be used and that the accounts be correctly classified (labeled) in the financial statements. To illustrate the complications that can arise here, consider an example:

*Suppose a company has invested a large amount of money in gold ingots. The ingots can be sold any day the company needs to raise cash. However, the price of gold fluctuates a good deal every day. Is it acceptable to report the ingots on the balance sheet as part of the cash balance, or should they be reported as something else? This question has also been answered in GAAP. According to the "rules," assets that fluctuate so greatly in value are not properly accounted for as cash assets. Instead, they should be reported as investments.*

**-End-**

## Supplemental Exercise

You may use the following practice exercise to reinforce your understanding of material presented in this module. The answer key is provided, but try to work the exercise out “without looking.”

Practice Exercise, Fred Tall, Module 1

Part I. Record each of the following business transactions in the table below.

- a. On August 1, 20X1, Fred Tall began Fred's Accounting Service, Inc. by opening a bank account in the name of the business, and depositing \$5,000 received from the issuance of common stock to himself and his family.
- b. Aunt Edith contributed \$3,000 worth of office supplies to the corporation. Common stock was issued to Aunt Edith in exchange for her contribution.
- c. Fred purchased \$3,000 worth of office equipment by writing a check on the business account.
- d. Fred visited the computer store, and agreed to buy a PC system that was on sale. The computer store will hold the PC until Fred returns and pays for it.
- e. A week later, Fred returned to the computer store, paid \$2,000 by writing a check on the business account and took the PC with him.
- f. Fred borrowed \$5,000 from Third National Bank for use in the business, signing a promissory note due in one year.
- g. Purchased and took delivery of additional office equipment, \$1,000, agreeing to pay for the equipment in 10 days.
- h. Paid for the equipment purchased above.
- i. Sold, for \$100, an unneeded piece of equipment that had cost \$100.
- j. Sold unneeded office supplies that had cost \$500 to the company next door. They promised to pay in 10 days.
- k. Collected \$100 in partial payment from the buyer of the supplies.
- l. On August 23 the corporation paid \$1,000 in dividends to the stockholders. Determined the balances in the asset, liability and stockholders' equity accounts.
- m. Arlene Ajax paid the business \$1,000 in cash for accounting services.
- n. Finished a tax return for James Jumpup and mailed him a formal bill for \$350.
- o. Met a new client and agreed to do his tax return for \$250. No work has yet been done on the return.
- p. Fred paid the business utility bill by writing a check on the business account for \$30.
- q. Received the telephone bill for the service used, \$50, payment due in one week.
- r. Hired an assistant, agreeing to pay him \$50 per day. The assistant will begin work next week. Noticed that \$200 of supplies had been used up during the month.
- s. On August 31 received \$100 in partial payment from James Jumpup. Paid the telephone bill. Paid the utility bill. Balanced the accounts and prepared an income statement, statement of stockholders' equity, and balance sheet.

(See following page for working paper)

# Blank Working Paper

Use the following working paper to record the transaction from the previous page (solution on following page).

ASSETS						=	LIABILITIES		STOCKHOLDERS' EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
a.										
b.										
c.										
d.										
e.										
f.										
g.										
h.										
i.										
j.										
k.										
l.										
Balance										
m.										
n.										
o.										
p.										
q.										
r.										
s.										
Final Balance										

Use your own paper for financial statements.

## Solution to Supplemental Exercise

ASSETS						=	LIABILITIES		STOCKHOLDERS' EQUITY	
	Cash	Accounts Receivable	Office Supplies	Office Equipment	Computer	=	Accounts Payable	Notes Payable	Common Stock	Retained Earnings
a.	+5,000					=			+5,000	
b.			+3,000			=			+3,000	
c.	-3,000			+3,000		=				
d.						=				
e.	-2,000				+2,000	=				
f.	+5,000					=		+5,000		
g.				+1,000		=	+1,000			
h.	-1,000					=	-1,000			
i.	+ 100			- 100		=				
j.		+ 500	-500			=				
k.	+ 100	- 100				=				
l.	-1,000					=				-1,000
Balance	3,200	400	2,500	3,900	2,000	=	0	5,000	8,000	-1,000
m.	+1,000					=				+1,000
n.		+ 350				=				+ 350
o.						=				
p.	- 30					=				- 30
q.						=	+ 50			- 50
r.			- 200			=				- 200
s.	+ 100	- 100				=				
	- 50					=	- 50			
Final Balance	4,220	650	2,300	3,900	2,000	=	0	5,000	8,000	70

(See following page for statements)

Fred's Accounting Service, Inc.  
Income Statement  
for the month ended August 31, 20X1

Revenues:			
Accounting Revenues			\$ 1,350
Expenses:			
Telephone Expense	\$ 50		
Supplies Expense	200		
Utilities Expense	<u>30</u>		
Total Expenses		<u>(280)</u>	
Net Income			\$ <u>1,070</u>

Fred's Accounting Service, Inc  
Statement of Stockholders' Equity  
for the month ended August 31, 20X1

Beginning Balance		\$ 0
Increases:		
Contributions	\$ 8,000	
Net income	<u>1,070</u>	<u>9,070</u>
Total		\$ 9,070
Decreases:		
Dividends		<u>(1,000)</u>
Ending Balance		\$ <u>8,070</u>

Fred's Accounting Service, Inc  
Balance Sheet  
August 31, 20X1

Assets:			
Cash			\$ 4,220
Accounts Receivable			650
Office Supplies			2,300
Office Equipment			3,900
Computer			<u>2,000</u>
Total Assets			\$ <u>13,070</u>
Liabilities:			
Notes Payable			\$ 5,000
Stockholders' Equity:			
Common Stock	\$ 8,000		
Common Stock	<u>70</u>		
Total Stockholders' Equity			<u>8,070</u>
Total Liabilities and Stockholders' Equity			\$ <u>13,070</u>