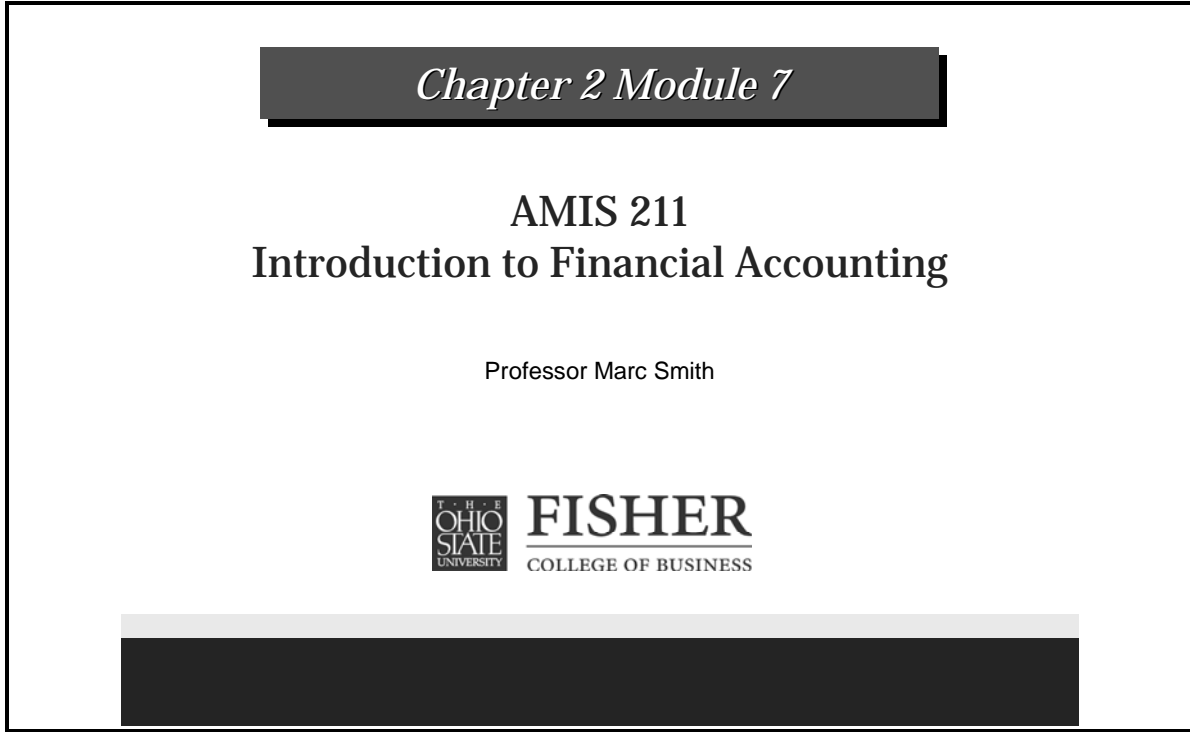


## Chapter 2, Module 7 – Financial Statements

### Slide 1

The slide content is enclosed in a black rectangular border. At the top, there is a dark grey horizontal bar with the text "Chapter 2 Module 7" in a white, italicized serif font. Below this bar, the text "AMIS 211" is centered in a bold, black, sans-serif font. Underneath "AMIS 211", the text "Introduction to Financial Accounting" is centered in a bold, black, serif font. Below the title, the text "Professor Marc Smith" is centered in a smaller, black, sans-serif font. At the bottom center, there is the logo for Fisher College of Business at Ohio State University, which includes a small square icon with "T · H · E" above "OHIO STATE UNIVERSITY" and the word "FISHER" in a large, bold, serif font above "COLLEGE OF BUSINESS". At the very bottom of the slide, there is a dark grey horizontal bar.

Hi everyone. Welcome back.

Now that we have gone through those basic Financial Statement concepts, let's see if we can put what we know to test. And let's try a couple of Examples.

Before we get started, just a reminder: I know you have heard this in class and as well as in the Introductory module. But, please print out these problems from the Web site.

If you do not have the problems in front of you, turn me off.

Go to the Web site. Click on the icon labeled Lecture Problems. And, print out the problems, so you have them in front of you and can follow them as we work through them.

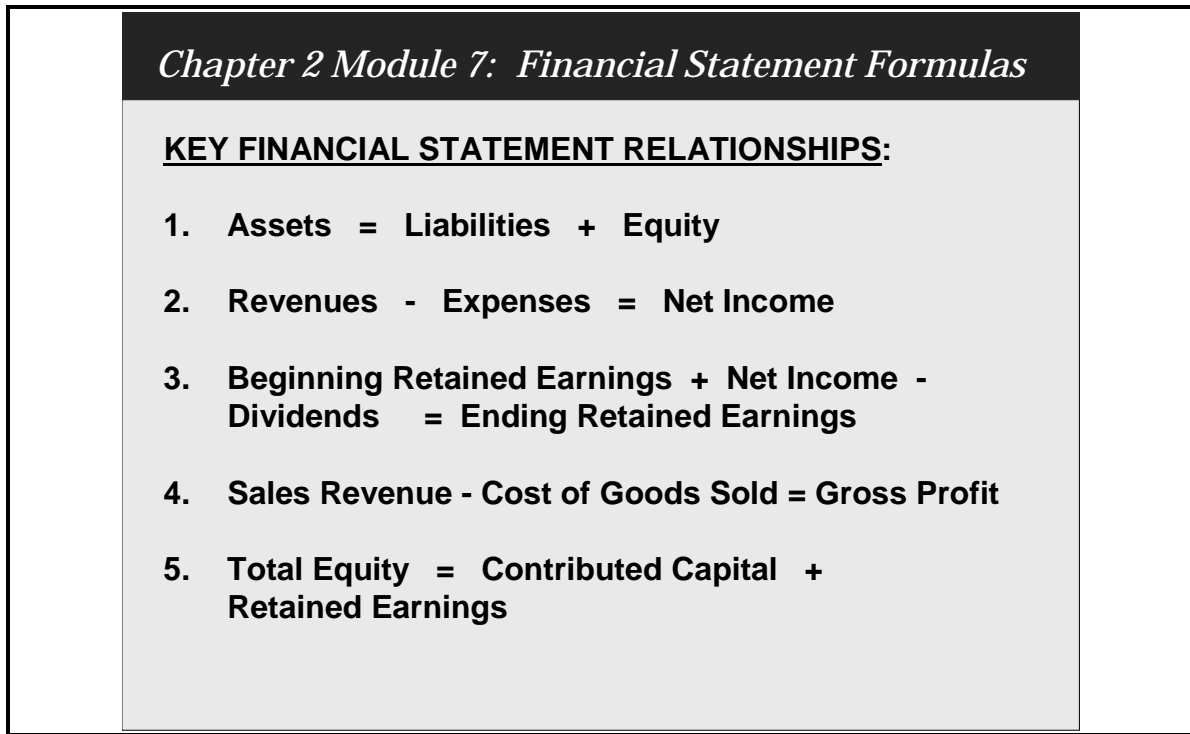
It won't do you much good if you do not have the problem in front of you. You won't really see where the numbers are coming from.

So I am going to assume we all have our problems.

Let's go ahead and get started.

And, let's go ahead to the next slide.

**Slide 2**

A rectangular box with a black border containing text. The top part of the box has a dark background with white text. Below that is a light gray background with black text. The text lists five key financial statement relationships.

***Chapter 2 Module 7: Financial Statement Formulas***

**KEY FINANCIAL STATEMENT RELATIONSHIPS:**

- 1. Assets = Liabilities + Equity**
- 2. Revenues - Expenses = Net Income**
- 3. Beginning Retained Earnings + Net Income - Dividends = Ending Retained Earnings**
- 4. Sales Revenue - Cost of Goods Sold = Gross Profit**
- 5. Total Equity = Contributed Capital + Retained Earnings**

And, before we actually begin Example #1, I have just regurgitated here (on Slide 1) those key financial statement relationships one more time.

The Balance Sheet: Assets equal (=) Liabilities plus (+) Equity ( $A = L + E$ ).

The Income Statement: Revenues minus (-) Expenses equals (=) Net Income.

Also, found on the Income Statement is: #4, there: Sales Revenue minus (-) the Cost of Goods Sold (CGS) is what we call our Gross Profit.

Remember: that is our profit from selling inventory.

Equations #3 and #5 deal with the Equity of the company.

#3—one that everybody seems to forget—the Beginning Retained Earnings balance plus (+) Net Income, minus (-) Dividends is (=) the Ending Retained Earnings Balance.

And, then we know that our Total Equity is (=) the sum of the two (2) sources: 1) the Contributed Capital and 2) the Retained Earnings.

That is a pretty good cheat sheet.

You want to have that down and be very comfortable with those relationships.

We are going to make use of them as we do these examples.

Let's go ahead and get started with Example #1.

Please go to the next slide with me.

Slide 3

*Chapter 2 Module 7: Example #1*

**1. Calculate expenses for 2004**

$$\text{Revenues} - \text{Expenses} = \text{Net Income}$$

$$350 - \text{Expenses} = 110$$

$$\text{Expenses} = \$240$$

Example #1:

Let's just story of read it together.

It says: "The following information is available for Stone Company for the year 2004." And, you can see the information that is given.

And Requirement 1 says from that information: Calculate the expenses incurred by Stone during the year.

We do know...what? The Income Statement tells us Revenues minus (-) Expenses equals (=) Net Income.

And, I think we have enough information to solve this pretty easily.

The problem tells us that the Revenues were \$350.00.

We do not know what the expenses are—that is what we are solving for.

But, we also know that the Net Income is 110 bucks (\$110).

We do a little bit of Algebra and we can figure out that our Expenses for the year were equal to (=) \$240.00.

Very good!

Let's go ahead to the next slide.

**Slide 4**

*Chapter 2 Module 7: Example #1*

**2. Calculate dividends paid during 2004**

**Beginning Retained Earnings + Net Income - Dividends = Ending Retained Earnings**

**140 + 110 - Dividends = 200**

**Dividends = \$50**

Requirement 2 asks us to: Calculate the dividends that were paid during the year.

If you need to, refer back to the cheat sheet. Which of those equations had the idea or had the concept of dividends in the equation?

It was the third one, right? 3): The Beginning Retained Earnings plus (+) Net Income, minus (-) Dividends, equals (=) the Ending Retained Earnings.

And, I think we have enough information to pretty easily figure out the dividends as well.

The problem tells us: Retained Earnings at January 1<sup>st</sup>: \$140.00. They tell us the Net Income was \$110.00.

We can solve for Dividends. Make that your “x.”

And, all that is equal to (=) your Ending Balance in Retained Earnings, given in the problem as 200 bucks (\$200.00.)

Again, doing a little bit of Algebra, we solve for our Dividends to be \$50.00.

This is fun, right?

Let’s go to the next slide and look at Requirement 3.

### Slide 5

#### *Chapter 2 Module 7: Example #1*

#### **3. Calculate contributed capital at Dec. 31, 2004**

**Total liabilities at 12/31 + Total equity at 12/31 = 600**

**Total liabilities at 12/31 = 50**

**Total equity at 12/31 = 550**

**Total equity = Contributed capital + Retained earnings**

**550 = Contributed capital + 200**

**Contributed capital at 12/31 = \$350**

Okay, let’s take a look at Requirement 3 of the problem.

It says to: “Calculate the Contributed Capital at December 31<sup>st</sup>, 2004—the end of year (EOY).”

We know...what?

What do we know about Contributed Capital?

We know the Contributed Capital, which is part of Equity, relates to the amount of investments made by Owners into the business.

How do they make investments?

They buy stock from the company.

And, we also know that Total Liabilities at the end of the year (EOY) plus (+) Total Equity at the end of the year (EOY)—that is given to us in the problem as \$600.00.

And, we remember that the Contributed Capital is part of Equity.

If you look at what else is given in the problem:

We see that Total Liabilities at the end of the year (EOY) are simply equal to (=) \$50.00.

With a little bit of deductive reasoning, that means that the Total Equity at the end of the year (EOY) must be \$550.00—if total Liabilities plus (+) Equity equals (=) \$600.00.

Equity consists of two (2) components, right? It consists of 1) the Contributed Capital and 2) the Retained Earnings.

And, we know the Total Equity, which is \$550.00. And we know the Retained Earnings at the end of the year (EOY): \$200.00. These are given.

This allows us to easily solve for the Contributed Capital at the end of the year (EOY) to be \$350.00.

All right! Let's go to the next slide and look at the fourth requirement (Requirement 4). This one is a little bit tougher.

## Slide 6

*Chapter 2 Module 7: Example #1***4. Calculate total assets at January 1, 2004**

$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

$$\text{Assets} = \text{Liabilities} + \text{CC} + \text{RE}$$

$$\text{Assets} = 60 + \text{CC} + 140$$

Requirement 4 says to: Calculate the total assets at January 1<sup>st</sup> of 2004.

What do we know?

We sort-of go back to our cheat sheet (Slide 1). Where are our Assets?

We know that Assets are equal to (=) Liabilities plus (+) Equity--the fundamental accounting equation ( $A = L + E$ ).

And, we also know that Equity consists of two pieces: 1) Contributed Capital and 2) Retained Earnings.

So, we can rewrite that fundamental accounting equation as: Assets are equal to (=) Liabilities plus (+) Contributed Capital (the CC) plus (+) Retained Earnings (the RE). ( $A = L + (CC + RE)$ ).

And, what else do we know?

We know that the Liabilities at January 1<sup>st</sup>—they are given in the problem as \$60.00.

And, we know the Retained Earnings at January 1<sup>st</sup>; that is also given in the problem: 140 bucks (\$140.00).

And, we say: “Oh no! The Contributed Capital at the beginning of the year is not given!”

So, now, we are left with this one equation and two unknowns!

So, we need to somehow, someway figure out the Contributed Capital at January 1<sup>st</sup> to figure out what our Assets were.

Let’s go to the next slide and see if we can do that.

**Slide 7**

**Chapter 2 Module 7: Example #1**

**4. Calculate total assets at January 1, 2004 (continued)**

**From Chapter 2 Module 4 Slide 5:**

**Contributed Capital:**  
**Beginning Balance (January 1)**  
**+ Additional sales of common stock**  
**Ending Contributed Capital (December 31)**

**CC at 1/1 + 20 = 350 (from requirement 3)**

**CC at January 1 = 330**

So, we are still continuing to try to figure out our total assets (Requirement 4):

And, from Chapter 2, we know that: we can calculate our Contributed Capital as our Beginning Balance plus (+) any additional sales of stock that

happened during the year and that is equal to (=) our Ending Balance—the Contributed Capital at December 31<sup>st</sup>.

Let's see if we can work that backwards just a little bit.

We know that the Ending Contributed Capital was \$350.00. We calculated that in this problem in Requirement 3.

The problem also tells us that: during the year, we had additional sales of stock of 20 bucks (\$20.00).

So, we are able to figure out that the Contributed Capital at January 1<sup>st</sup> must have been \$330.00.

And, once we know this, go to the next slide with me.

### Slide 8

#### *Chapter 2 Module 7: Example #1*

#### **4. Calculate total assets at January 1, 2004 (continued)**

**From slide 6:**

$$\text{Assets} = \text{Liabilities} + \text{CC} + \text{RE}$$

$$\text{Assets} = 60 + \text{CC} + 140$$

**Now:**

$$\text{Assets} = 60 + 330 + 140$$

$$\text{Assets} = \$530$$

Once we know this, we can easily figure out our total assets.

Remember from a couple of slides ago, we had that equation. And we said, "Aww no! That is a problem! We have one equation, two unknowns!"

We have now figured out that our Contributed Capital at January 1<sup>st</sup> was \$330.00, allowing us to solve for total assets at January 1 of: 530 bucks (\$530.00).

Good problem! It is well worth your time to work back through that. Rewrite it out. Make sure you are comfortable with how we came up with those numbers.

I think Requirements 1 through 3 were pretty straightforward. You should not have too much difficulty with them. Requirement 4 is a little bit tougher. But, again, it is great practice in getting used to using those equations.

Let's go ahead to the next slide and take a look at Problem Number 2. And, we will, of course, start with Requirement Number 1.

### Slide 9

#### *Chapter 2 Module 7: Example #2*

#### **1. Calculate contributed capital at Dec. 31, 2003**

$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

$$10,000 + 190,000 = 25,000 + \text{CC} + 90,000$$

$$200,000 = 115,000 + \text{CC}$$

$$\text{Contributed Capital} = \$85,000$$

Here is what Problem #2 says:

The following information is given for XYZ Company for 2003. You see January 1 balances and December 31 balances for most of the items on the Balance Sheet. And, then they give us a little bit of additional information about Expenses and Dividends. And then, it does say additional shares of stock were sold to Investors.

In Requirement 1: Calculate the amount of Contributed Capital at December 31<sup>st</sup>. That is the question mark—the unknown that we have:

In the last example, we were able to do it because they told us how much stock was sold, right? So, were able to take the Ending Balance, then figure out the stock that was sold during the year, and we were able to back into the Beginning Balance.

But, they do not tell us that here. They don't tell us the amount of the stock that was sold to Investors.

So, we are not going to be able to approach it that way. We need to find another way to approach this.

What we do know is this: Assets equal (=) Liabilities plus (+) Equity  
( $A = L + E$ ).

And, if we try to set this up: we know that our Assets are \$200,000: \$10,000 Current; \$190,000 Long-Term.

So, the Assets of \$200,000 equal (=) the Liabilities (given) of \$25,000 plus (+) the Equity; which consists of the two (2) pieces: 1) the Contributed Capital—what we are looking to solve for—and 2) the Retained Earnings (given) as \$90,000 in the problem.

Once we know that, it becomes easy.

Contributed Capital at December 31<sup>st</sup> must have been \$85,000.

Let's go to the next slide and see if we can work through Requirement 2.

## Slide 10

*Chapter 2 Module 7: Example #2***2. Calculate revenues earned during 2003**

$$\text{Revenues} - \text{Expenses} = \text{Net Income}$$

$$\text{Revenues} - 35,000 = \text{Net Income}$$

$$\text{Beginning Retained Earnings} + \text{Net Income} - \text{Dividends} = \text{Ending Retained Earnings}$$

$$80,000 + \text{Net Income} - 7,500 = 90,000$$

$$\text{Net Income} = 17,500$$

Requirement 2 says: From that information given, calculate the revenues that were earned during the year.

Here is where we can start:

We know that Revenues minus (-) Expenses are equal to (=) Net Income.

We do not know what the Revenues are. That is what the problem has asked us to solve for.

In Additional Information Piece 1, we know the Expenses were \$35,000.

But, we do not know the Net Income either.

So, once again, we are left with: one equation, two unknowns.

We need to figure out what Net Income was.

Go back to your cheat sheet—the very first slide that we looked at (Slide 1).

What other equation has Net Income as an element?

Hopefully, it is the one that you won't forget, because everybody has a tendency to forget it.

It is the one with Retained Earnings:

Beginning Retained Earnings plus (+) Net Income, minus (-) Dividends, equals (=) Ending Retained Earnings.

I think we have enough information to work with that equation, right?

The Beginning Retained Earnings (given) as of January 1: \$80,000; plus (+) the unknown Net Income; minus (-) the Dividends (given, Additional Information Piece 2): \$7,500. All that is equal to (=) the Ending Balance, which is given as \$90,000.

Solving for Net Income; it is equal to (=) \$17,500.

But, we are not done yet because that is not what the problem asks us to do.

Go to the next slide with me.

## Slide 11

***Chapter 2 Module 7: Example #2*****2. Calculate revenues earned during 2003  
(continued)****Revenues - Expenses = Net Income****Revenues - 35,000 = 17,500****Revenues = \$52,500**

The problem asks us to: Calculate the revenues.

But now, we can use what we just did to easily determine what the Revenues are.

Revenues minus (-) Expenses equals (=) Net Income.

We knew the Expenses were \$35,000.

We just solved for the Net Income to be \$17,500.

Revenues must have equaled (=) \$52,500.

These are two real good problems that are well worth your time. Go back through them and be comfortable with how we solved them.