[redacted]

Course: **Supply Chain Management**
SME/ID:

Module #1: Finance: Why it Matters

ILO #1: GAAP and the Art of Assumptions

Cost estimate: Prototype

Storyline Interactive Learning Object (ILO) Description

This activity will help you understand that there are assumptions and estimates and recording of revenue as it relates to Generally Accepted Accounting Principles (GAAP) that when done correctly will enhance reporting, and when done incorrectly could create problems including jail time for the CEO and CFO, fines that impact the bottom line of the business and you could lose your job! As a supply manager understanding of financial fraud and is starting to learn about assumptions and its relationship to GAAP (i.e. co-mingling and the timing of revenue).

Interaction:

- A series of interactive screens and data presentations looking like spreadsheets take students through some of the ways that SCM can contribute financially to an organization.
- Students will practice with feedback
- Students will engage in scenario-based formative activities

Pedagogical Rationale:

This ILO will give students foundation knowledge in an engaging manner to help students remember and apply the information in a meaningful manner.

[redacted]

Course: **[enter course number & name]**
SME/ID: [enter SME/ID names]

Learning Objective(s):

- **LO 1.3:** Utilize financial statements to understand the impact of assumptions and estimates
- **LO 1.4:** Calculate the Strategic Profit model

Course Outcome(s):

- **CO2:** Evaluate how supply chain functions impact the financial statements.

Sample Screens:

Slide: 0	Slide Title: GAAP and the Art of Assumptions

Text on Screen

GAAP and the Art of Assumptions

Voice-over Text

N/A

Developer Notes

- Please use standard templates for style and navigation when possible.
- Please use standard UT Avatars that represent the players in the scenes

Slide: 1

Slide Title: The Situation

Text on Screen

Voice-over Text

You are a new Supply Chain Manager with Straight Lace, an online shoe company. It has been a long first week at your new job, and you are looking forward to the weekend.

Developer Notes

- The image above is an example image, please recreate or use stock photo.
- Please use standard Avatar for the Supply Chain Manager.
- Please use standard templates for style and navigation when possible.
- When avatars are on the screen, please include a title and name per the SME request.

Slide: 2	Slide Title: The Situation

Text on Screen

N/A

Voice-over Text

[Sound: Phone rings, the ring image pulses]

Narrator: Suddenly, your phone rings and you can see it is the CFO calling.

Developer Notes

- The image above is an example image, please recreate or use stock photo.
- Add ringing phone sound bite.

Slide: 3

Slide Title: The Situation

Text on Screen

CFO Name and Title

SCM: Name and Title

Voice-over Text

SCM: Hello?

CFO: Hi ___! How are things going?

SCM: Great, getting my feet on the ground.

CFO: I wanted to let you know that our annual GAAP Audit is coming up and due to changes in management, it is important that we are prepared. I would like you to become familiar with our company's financial status as your division directly influences the success or failure of our business.

Developer Notes

- Please use standard Avatar for the Supply Chain Manager and CFO.
- Recreate the image above.
- Please use standard templates for style and navigation when possible.
- When avatars are on the screen, please include a title and name per the SME request.

Slide: 4	Slide Title: The Situation

Text on Screen

SCM Name and Title

Voice-over Text

SCM: I understand, what would you like me to do?

CFO: I would like you to start by examining the previous 3 years' financial statements, and balance sheets as they pertain to Supply Chain Management financial practices. Remember, accounting is as much an art form as it is a science!

SCM: Thanks for the heads-up sir, I will get right on that!

Developer Notes

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- Recreate the image above.
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Slide: 5	Slide Title: Assumptions, Estimates and Biases

Text on Screen

Assumptions, Estimates, and Biases

Voice-over Text

Narrator: After considering the CFO's directive, you begin your review by examining previous Financial Statements to explore assumptions, estimates, and biases. Your goal is to become acquainted with the accruals, estimates, and allocations that align with the Generally Accepted Accounting Principles (GAAP).

Developer Notes

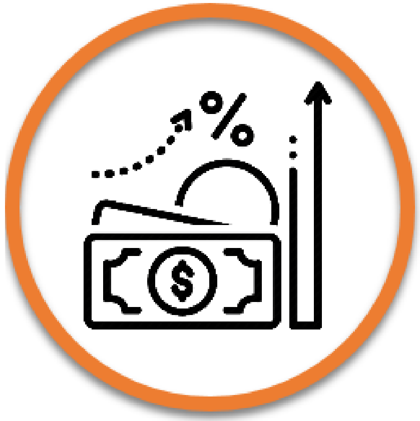
- Recreate the image above matching the background from before
- Please use standard templates for style and navigation when possible.
- Transition to the next screen by zooming in to the monitor.
-

Slide: 6a | Slide Title: The Art of Finance

Accrual | Allocation | Valuation | Depreciation

Determining **accrual** almost always entails making assumptions and estimates.

Example: Smith Co. sold $50,000 of merchandise to Jones Co. on account. This results in an accrual because the revenue is accrued (recorded) even though the cash will not be received until a future date.



Text on Screen

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Example: Smith Co. sold $50,000 of merchandise to Jones Co. on account. This results in an accrual because the revenue is accrued (recorded) even though the cash will not be received until a future date.

Accrual (hot spot) The recording of a portion of revenue or expense during a particular time frame. The purpose is to match revenue or expense to the time period they were incurred.

Voice-over Text

GAAP is influenced by Accruals & Allocations, Valuations, and Depreciations All of which are determined based on the discretion of the accountant. View each tab to learn more!

Developer Notes

- Please use standard templates for style and navigation when possible.
- This is a Click and Reveal Tabs format
- The Active Tab should be a different color
- Check and see if we have an Icon for Accruals?
- The underlined word is linked to a popup that gives a definition.

Slide: 6b | Slide Title: The Art of Finance

Accrual | **Allocation** | Valuation | Depreciation

<u>**Allocations**</u> also involve making assumptions and estimates.

Example: Assigning of corporate costs such as CEO salary to various divisions of the organization. These costs usually appear as selling and administrative costs for the division/region to which they have been allocated.

Developer Notes

- Please use standard templates for style and navigation when possible.
- This is a Click and Reveal Tabs format
- The Active Tab should be a different color
- Check and see if we have an Icon for Allocations?
- The underlined word is linked to a popup that gives a definition.

Text on Screen

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Example: Assigning of corporate costs such as CEO salary to various divisions of the organization. These costs usually appear as selling and administrative costs for the division/region to which they have been allocated.

<u>**Allocations**</u> (hot spot) Allocations are the process of assigning costs, such as overhead costs, to a product.

Voice-over Text

N/A, Voice-over on initial screen only.

Slide: 6c

Slide Title: The Art of Finance

Accrual | Allocation | Valuation | Depreciation

In determining **valuation**, different methods produce different results.

Example: When tracking inventory, companies can use either a perpetual tracking method (inventory continually updated) or a period tracking method (inventory balance only adjusted periodically). Companies also choose a cost-flow methodology – either LIFO, FIFO, or Weighted Average method. Each of these are assumptions about which goods are sold.

Text on Screen

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Valuation (hot spot) In finance, **valuation** is the process of determining the present value (PV) of an asset.

Voice-over Text

N/A, Voice-over on initial screen only.

Developer Notes

- Please use standard templates for style and navigation when possible.
- This is a Click and Reveal Tabs format
- The Active Tab should be a different color
- Check and see if we have an Icon for Valuation?
- The underlined word is linked to a popup that gives a definition.

Slide: 6d | Slide Title: The Art of Finance

Accrual | Allocation | Valuation | **Depreciation**

In **depreciation**, accountants attempt to spread the cost of the expenditure over the useful life of the item.

Example: White Co. purchased a laser cutting machine for $5,000.000. The machine is expected to be useful in generating revenues for the company for 10 years and is estimated to have a residual value of $200,000 at that time. White chooses to use straight line depreciation for these types of machines. Rather than record an expense of $5,000,000 at the time the asset is purchased, the company will allocate the cost of that asset over its useful life.

Developer Notes

- Please use standard templates for style and navigation when possible.
- This is a Click and Reveal Tabs format
- The Active Tab should be a different color
- Check and see if we have an Icon for Depreciation?
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Text on Screen

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Depreciation (hot Spot) An accounting method of allocating the cost of a capital asset over its estimated useful life.

Voice-over Text

N/A, Voice-over on initial screen only.

Slide: 7 | Slide Title: Accounting Tools

Accounting Tools

- Inventory Reserve
- Reserves for Bad Debt
- Manufacturing Overhead
- Revenue Recognition
- Co-mingling

Text on Screen

(popup) Inventory Reserve: An estimated charge for existing inventory that is currently worth less than its original cost or is obsolete. This is considered an estimate.

(popup) Manufacturing Overhead: Costs incurred in the manufacturing process that are not directly/easily traceable to an individual product, examples include plant manager salaries, factory utilities, factory insurance and depreciation on the factory machines. This is considered an allocation.

(popup) Reserves for Bad Debt: An estimate of what portion of Accounts Receivable will not be collected from a company's customers. This is considered a valuation.

(popup) Revenue Recognition: An accounting principle that outlines when revenue should be recognized. This is considered an Accrual.

(popup) Co-mingling: The combining of assets or customer-owned securities in a single investment vehicle. This is considered an allocation.

Voice-over Text

The following accounting tools are used in estimates, allocations, valuations, and accruals. Click each box to view a description of each term.

Developer Notes

- Please use standard templates for style and navigation when possible.
- When the learner clicks on each tool name it shows a popup with the definition (See Text on Screen).
- Once the learner views the popup the topic is marked as viewed using a check mark or color change. (see the image, if the learner has viewed the first two they are now a different color)
- The swiss army knife above is a free image: https://pixabay.com/vectors/swiss-army-knife-pocket-knife-blade-154314/

Slide: 8	Slide Title: The Strategic Profit Model and ROA

Strategic Profit Model and ROA

The Strategic Profit Model is also called the Dupont Model. This model is used to show how investments can be translated into ROA. *Click on the parts of the formula to learn more.*

Return on Assets Formula

$$\boxed{\text{ROA}} = \frac{\boxed{\text{Net Income/Sales}}}{\boxed{\text{Total Assets}}} \times \boxed{\text{Asset Turnover Ratio}}$$

Text on Screen

Strategic Profit Model The Strategic Profit Model is also called the Dupont Model. This model is used to show how investments can be translated into ROA. *Click on the parts of the formula to learn more.*

(Popup) **ROA:** Return on Assets -- an indicator of how profitable a company relative to its total assets (profit x asset turnover ratio).

(Popup) ***Net Income/Sales:*** Net Income is equal to net earnings (profit) calculated as sales less cost of goods sold, selling, general and administrative expenses, operating expenses, depreciation, interest, taxes and other expenses. ***This number appears on a company's income statement and is an important measure the company's profitability.***

(Popup) ***Asset Turnover Ratio:*** The asset turnover ratio measures how efficiently a company uses its assets to generate revenue. Changes in this ratio can signal that sales are slowing down or speeding up earlier than it would show up in other financial measures. ***If a company's asset turnover decreases, its ROA will improve.***

(Popup) **Total Assets:** Total assets refers to the total amount of assets owned by a person or entity. Assets are items of economic value, which are expended over time to yield a benefit for the owner. ***Total Assets when effectively managed produce greater amounts of net income.***

Developer Notes

- Please use standard templates for style and navigation when possible.
- Feel free to make this look much better! ☺

Voice-over Text

There are a lot of assumptions used when creating financial reports. By working backward from ROA using the Strategic Profit Model, you can identify how your decisions will affect your firm's ability to generate returns. You can also compare alternative decisions to see which will provide better returns. This will help you know which logistics lever to pull to achieve desired results.

Slide: 9	Slide Title: ROA and Supply Management

How does Supply Chain Management affect a company's ROA? *Click on each image to learn more*

Excess Inventory

Product Quality

Outsourcing

Material Cost

Text on Screen

- **(Popup)** Excess inventory is expensive to store, requires more labor to manage, and increases the chances inventory write-offs for goods that spoil or become obsolete while in your stock. Eliminating excess inventory reduces costs and can boosts profits. Higher profits, higher ROA.
- **(Popup)** Providing quality products generates more revenue, boosts customer loyalty (repeat business), and reduces customer service costs. Reducing your wholesale costs further increases your profit margin, increasing the ROA.
- **(Popup)** Reducing supply chain expenses and outsourcing services may reduce overhead. In addition to boosting profit, this can reduce assets by disposing of fixed assets, increasing ROA in two ways at once if the outsourcing saves on cost and does not affect quality of service.
- **(Popup)** When you reduce material costs there is a reduction in both material costs (as part of COGS on income statement) and in inventory (as part of assets on balance sheet).

Developer Notes

- Please use Icons similar to the ones shown that best represent the topic.
- Each Icon is a hot spot that when clicked shows more information.

Voice-over Text

[redacted] said, "To build an effective model between supply chain decisions and organizational performance, the supply chain organization in a firm must understand how its actions and decisions link to the financial components of the firm." So how does Supply Chain Management affect a company's ROA?

Slide: 10a | Slide Title: The Financial Statement: Estimates, Assumptions, and Biases

Straight Laced
Balance Sheet
March 31, 2019
(All figures in thousands of US Dollars)

Assets:	
Cash	1,000
Accounts Receivable	5,000
Inventory	12,000
Current Assets	18,000
Long Term Assets	30,000
Total Assets	48,000
Liabilities:	
Accounts Payable	6,000
Current Liabilities	6,000
Long Term Debt	32,000
Total Liabilities	38,000
Equity	10,000

Text on Screen

Screencast Video!

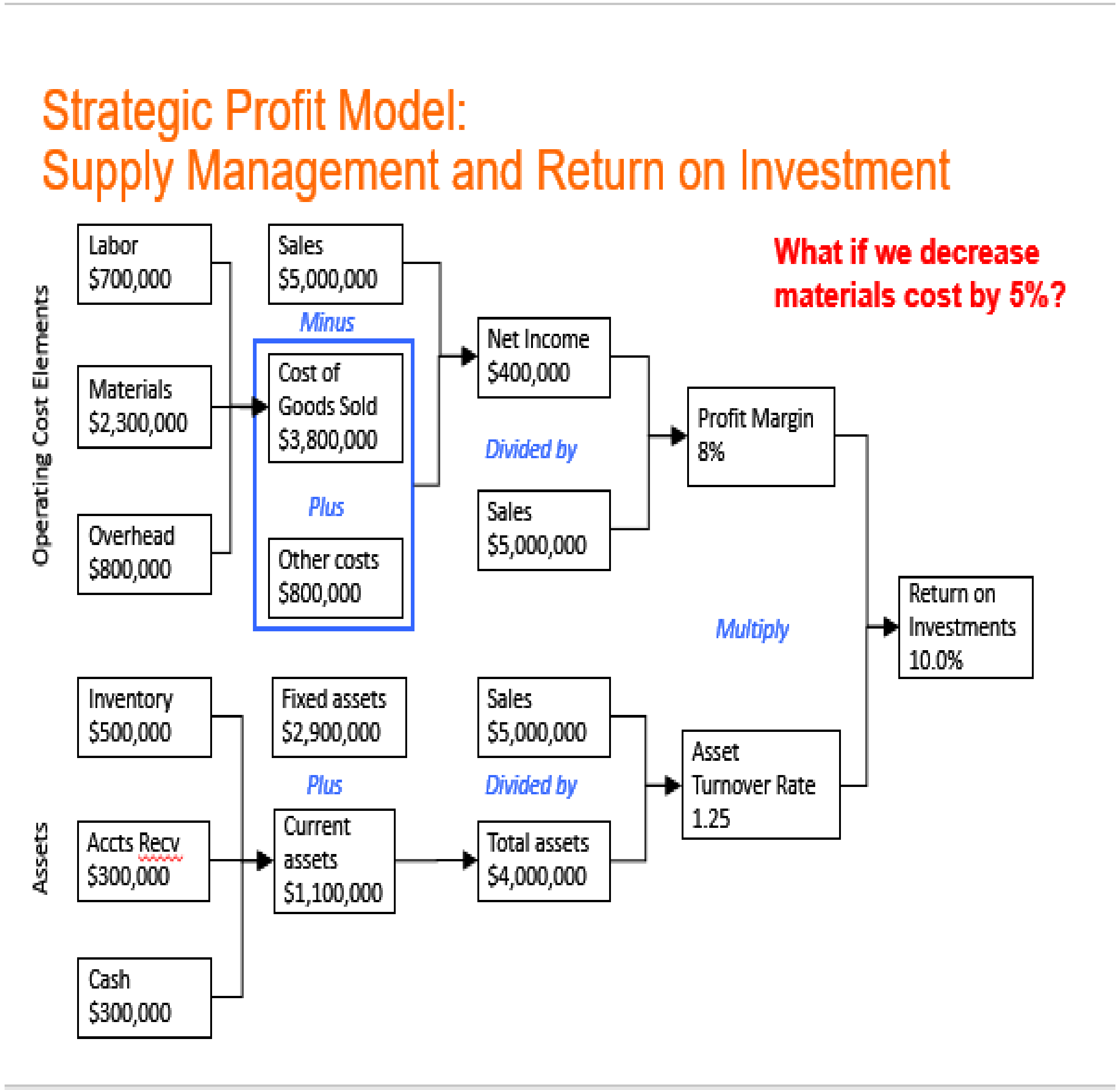
Voice-over Text

Refer to Script

Developer Notes

This will be a screencast video demo.

Slide: 10b	Slide Title: Using the Strategic Profit Model to Calculate ROA



Text on Screen

Screencast Video!

Voice-over Text

Refer to Script

Developer Notes

This will be a screencast video demo.