- Understand some key concepts of Financial Accounting
- Appreciate the differences between cash basis and accrual accounting
- Develop a mental model for classifying types of accruals
  - Practice the basic bookkeeping model

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### **Important Financial Accounting Concepts**

- Conservatism: not the same as pessimism
- Materiality: Benefit/cost trade-off
- Consistency: Contrast with uniformity
- Comparability
- Verifiability
- Revenue Recognition
- Matching Principle: Matching Efforts (costs) with Benefits (revenue)
  - Further, we will make assumptions about the Economic Entity, its ability to survive as a Going Concern, and the Fiscal Period (which need not be the calendar year)



15.514 200 Session Example: How should we value one-of-a-kind assets, like one of Intel's wafer fabrication plants?

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# **Key Conflict: Relevance v. Reliability**

Example: How to value one-of-a-kind assets?

- Financial accounting stresses Objectivity: Verifiable and reliable information.
- Does not mean accounting is "cut and dried."
- Still ample room for managerial judgment when estimating future effects under "objective rules."



Assets = Liabilities + Shareholders' Equity

Assets - Liabilities = "own" "owe"

Shareholders' Equity "owners' share of the business" (book value, residual claim)



### Accounting in a Single-Period Word is "Easy"

- Cash	+ Cash
Invested	Returned
0	1

Example: Shipping Expeditions in the 15th Century

- Ship sold at end of voyage: finite project life
- No information available until ship returns
- Income is simply difference between cash out and cash in



Session

### Accounting in a Multiperiod World is "Difficult"



- No pre-determined end to firm's life going concern
- Cash invested and generated at multiple points in time
- Subsequent actions affected by prior results feedback
- Monitoring by external investors: evaluate investment, retain/reward management
- Accrual accounting: focus on measuring performance in a given time period, independent of cash effects.



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# **Principals of Accrual Accounting**

- An attempt to measure firm performance regardless of when cash is exchanged
- **Revenue Recognition:** 
  - Earnings process substantially complete
  - Cash collection reasonably assured
  - The Matching Principle for Expenses:
  - Match efforts to the benefits generated
  - Capitalize expenditures that will benefit future periods, expense as benefits are realized
  - Recognize liabilities when efforts benefiting the current period require cash payment in the future



Session

#### **Cash Collection v. Revenue Recognition**

	Prior Period	Current Period	Subsequent Period		
Cash received concurrent with earning revenue		+ Cash (A) = + Revenue (SE) → Income Statement			
Cash received before earning revenue	+ Cash (A) = + Deferred Revenue (L)	0 = - Deferred Revenue (L) + Revenue (SE) → Income Statement			
Cash received after earning revenue		<ul> <li>+ Accounts Receivable (A) =</li> <li>+ Revenue (SE) →</li> <li>Income Statement</li> </ul>	+ Cash (A) - A/R (A) = 0		

Note: Deferred Revenue can also be called Advances from Customers. Both names signify that cash has been received for a service or product that hasn't been delivered.

#### **Cash Payment v Expense Recognition**

	1	1		
	Prior Period	Current Period	Subsequent Period	
Cash paid		$- \operatorname{Cash}(-A) =$		
concurrent with		+ Expense (-SE) $\rightarrow$		
using resource to		Income Statement		
generate revenue				
Cash paid	- Cash (-A)	- Productive Asset (-A) =		
before	+ Productive	+ Expense (-SE) →		
using resource to	Asset $(A) = 0$	Income Statement		
generate revenue				
Cash paid		0 =	- Cash (-A) =	
after		+ Accrued Liability (L)	Accrued	
using resource to		+ Expense (-SE) →	Liability (-L)	
generate revenue		Income Statement		

Note: The "Productive Asset" could be inventory, Prepaid Insurance, PP&E, etc. In the case of PP&E, we would reduce the value of the asset through the contra-asset Accumulated Depreciation. The "Accrued Liability" could be Accounts Payable, Accrued Wage Expense, Interest Payable, etc



## **Temporary v Permanent Accounts**

#### Permanent Accounts:

- Appear on the Balance Sheet
- Start each period with the ending balance from the prior period
- **Temporary Accounts:**
- Appear on the Income Statement
- Start each period with a balance of \$0
- Are closed at the end of the period to the Income Summary to compute Net Income for the period



# Handling Temporary Accounts in the Balance Sheet Equation (BSE) Format

Net Income = Revenues - Expenses + Gains - Losses

End. Ret. Earn. = Beg. Ret. Earn. + NI - Div

Therefore...

- Revenues and Gains ultimately Increase Ret. Earn.
- Expenses and Losses ultimately Decrease Ret. Earn.
- We'll record Income Statement components directly to the Permanent Account, Retained Earnings, with a note about the reason and recognize that this is a short-cut around the use of Temporary Accounts



#### **Exercise E5-18: Peters Company**

See Example E4-19: Peters Company on pages 163-4 in the course textbook.



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#### **Exercise E5-18: Peters Company, Year 1**

Cash + AR + PPRent + INV = AP + WgsPble + CC + RE





#### **Exercise E5-18: Peters Company, Year 2**

Ralance								
Sheet	Cash	+ AR +	PPRent	+ INV	= AP	+ WgsPble -	+ CC	+ RE
BB	26	4	6	5	10	4	24	3
1								



Performance MeasureYear 1Year 2Total

Net Income.....

Net Cash Flow from

Operations.....



- Relevance of Accounting Measures depends on the decision context
- Most relevant measures are sometimes the least reliable: a major trade-off in accounting
  - Accrual Accounting attempts to measure performance, regardless of when cash is affected
    - Tables on slides 8 and 9 provide a framework for thinking about the accrual process
    - Balance Sheet Equation (BSE) as a tool for understanding events' impacts on the Financial Statements

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