Accrual Accounting Process

15.501 **Accounting**

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An accountant's functions include

- Classifying and summarizing, made easier by the repetitive nature of business transactions
- All repetitive transactions of the same nature are recorded and summarized in one account
  - An account is a storage unit used to classify and summarize money measurements of business activity of a similar nature
  - Each account has a title

T-Account

- Has two sides
  - **Debit means Left**
  - **Credit means Right**

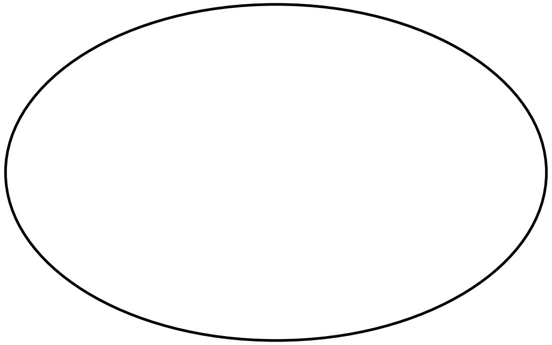
- Created for each type of
  - Asset
  - Liability
  - Stockholders' equity

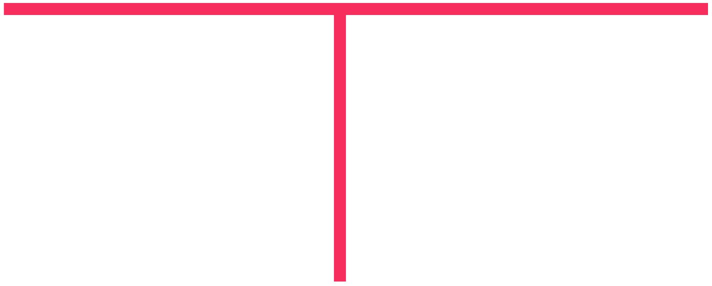
Recording changes in Assets and Liabilities

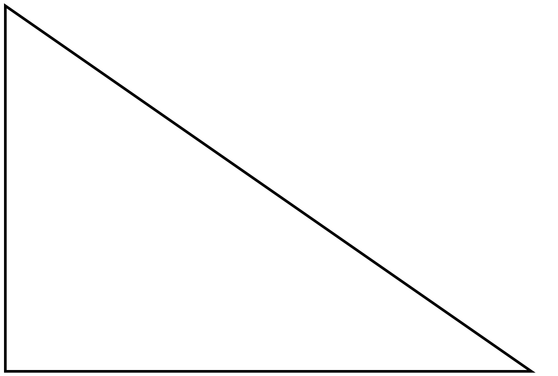
- Increases in assets are recorded on the left side of the T-account
- Decreases are recorded on the right side of the T-account
- Reverse for liabilities and stockholders' equity
- Assets = Liabilities + Stockholders' equity
- Assets are on the left side of the Balance Sheet Equation
- Liabilities and owners' equity are on the right side

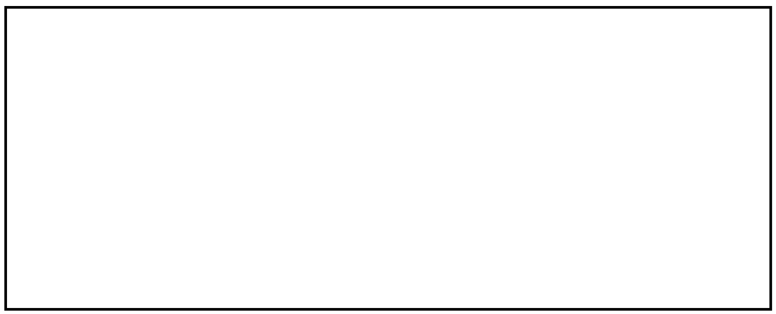
How does a T-account look like?

- Like a Capital "T"









Summary of T-account Rules

Assets (cash, receivables, equipment)	
Increases	Decreases

Liabilities (loans payable)	
Decreases	Increases

Owners' equity (contributed capital, retained earnings)	
Decreases	Increases

About T-Accounts

- What is one major objective of financial statements?
  - To provide information to “users” regarding the financial performance of a business
- Which T-account(s) includes the accountant’s estimate of financial performance over a given accounting period?
  - Retained earnings (includes current period income)
- Which financial statement provides the details of the financial performance over a given accounting period?
  - Income statement
- How do we construct an income statement from the T-account for retained earnings?
  - Not very easily! But we will try.

Components of stockholders' equity

Common Stock	
	Additional Capital

Retained Earnings	
Expenses Dividends	Revenue

Why record expenses and revenues separately in various T-accounts?

Retained Earnings

Rent exp.	800	1,000	Sales revenue
Salaries	650	1,100	Interest Income
Interest exp.	450	3,000	Sales Revenue
Salaries	1,000	200	Interest Income
Rent exp.	400	4,500	Sales Revenue
Dividends	2,000		
Interest exp.	350		

Sales Revenue (1,000 + 3,000 + 4,500)	8,500
Interest Income (1,100 + 200)	1,300
Rent expense (800 + 400)	(1,200)
Salaries expense (650 + 1,000)	(1,650)
Interest expense (450 + 350)	(800)
Net Income	**6,150**

Why record expenses and revenues separately in various T-accounts?

Retained Earnings

Rent exp.	800	1,000	Sales revenue
Salaries	650	1,100	Interest Income
Interest exp.	450	3,000	Sales Revenue
Salaries	1,000	200	Interest Income
Rent exp.	400	4,500	Sales Revenue
Dividends	2,000		
Interest exp.	350		

Interest Expense

450	
350	

Dividends

2,000	

Sales Revenue

	1,000
	3,000
	4,500

Interest Revenue

	1,100
	200

Rent Expense

800	
400	

Salaries Expense

650	
1,000	

Why record expenses and revenues separately in various T-accounts?

Interest Revenue

	1,100
	200
	1,300

Sales Revenue

	1,000
	3,000
	4,500
	8,500

Interest Expense

450	
350	
800	

Rent Expense

800	
400	
1,200	

Dividends

2,000	

Salaries Expense

650	
1,000	
1,650	

Why record expenses and revenues separately in various T-accounts?

Retained Earnings

Rent Exp. 1,200	8,500 Sales Revenue
Salaries Exp. 1,650	1,300 Interest Revenue
Interest Exp. 800	**4,150**
Dividends 2,000	

Sales Revenue

8,500	1,000
	3,000
	4,500
	8,500

Interest Revenue

1,300	1,100
	200
	1,300

Interest Expense

450	**800**
350	
800	

Rent Expense

800	**1,200**
400	
1,200	

Dividends

2,000	**2,000**

Salaries Expense

650	**1,650**
1,000	
1,650	

Why record expenses and revenues separately? A Summary

- Revenues, expenses and dividends are temporary T-accounts
- Information on **changes in retained earnings** pertaining to a **single accounting period** is collected in these temporary accounts
- At the end of the accounting period, balances in these T-accounts are transferred to Retained Earnings
- The temporary accounts are set to zero at the end of an accounting period in order to start collecting information for the next period
- Revenues, expenses and dividend accounts are **flow** accounts
- Retained earnings is a stock account
- In fact, all balance sheet accounts are **stock** accounts

Recording expenses: A Summary

- Expenses decrease retained earnings.
- Decreases in retained earnings are recorded on the left side
- Expenses are recorded on the left side

Recording Revenues: A Summary

- Revenues increase retained earnings.
- Increases in retained earnings are recorded on the right side
- (Increase in) revenues are recorded on the right side
- Decrease in revenues are recorded on the left side

Recording Dividends: A Summary

- Dividends decrease retained earnings
- Therefore, treated similarly to expenses, but dividends is not an expense
- Dividends are recorded on the left side

Expenses and Revenues: Debits and Credits

- Retained earnings (in general) has a credit balance.
- Revenues have credit balance (before they are closed out) because
  - they increase retained earnings
- Expenses and dividends have debit balance (before they are closed out) because
  - they decrease retained earnings
- Can retained earnings have a debit balance?
  - Yes, when cumulative earnings are less than cumulative dividends

The Ledger

- Accounts are collectively referred to as the ledger
- Types of accounts
  - Balance Sheet accounts or real accounts or permanent accounts
  - Income statement accounts or nominal accounts or temporary accounts,
    - i.e., revenue, expenses, and dividends - all these are subdivisions of retained earnings

The Recording Process

- Journal entries
- Adjusting entries
- Posting to T-accounts
- Trial Balance
- Financial statement preparation

The Journal

- Journal contains a chronological record of the transactions of a business

1. Joe's Landscaping Service
Joe contributes $10,000 in cash

- Assets = Liabilities + Owners' Equity
- Cash Contributed Capital
- +$10,000 +$10,000

		Journal Entry		
Dr	Cash		10,000	
	Cr	Contributed capital		10,000

2. The company borrows $3,000 from the bank

Assets	=	Liabilities	+	Owners' Equity
Cash		Loans Payable		
+$3,000		+$3,000		

	Journal Entry			
Dr	Cash		3,000	
	Cr	Loans payable		3,000

3. Company purchases equipment for $5,000 cash

Assets	=	L	+	OE
Cash	Equipment			
-$5,000	+$5,000			

Journal Entry			
Dr	Equipment	5,000	
	Cr Cash		5,000

4. Company performs service for $12,000. The customer pays $8,000 in cash and promises to pay the balance at a later date.

- Assets = L + Owners' Equity
- Cash Receivables Retained Earnings
- +$8,000 +$4,000 +$12,000

Journal Entry

Dr	Cash		8,000	
Dr	Accounts receivable		4,000	
	Cr	Retained earnings (Revenue)		12,000

5. Company pays $9,000 for expenses (wages, interest, and maintenance)

- Assets = Liabilities + Owners' Equity
- Cash Retained Earnings
- -$9,000 -$9,000

Journal Entry		
Dr Retained Earnings (Expenses)	9,000	
Cr Cash		9,000

6. Company pays a dividend of $1,000

- Assets = Liabilities + Owners' Equity
- Cash Retained Earnings
- -$1,000 -$1,000

Journal Entry			
Dr	Retained Earnings (Dividends)	1,000	
	Cr Cash		1,000

Posting to T-accounts

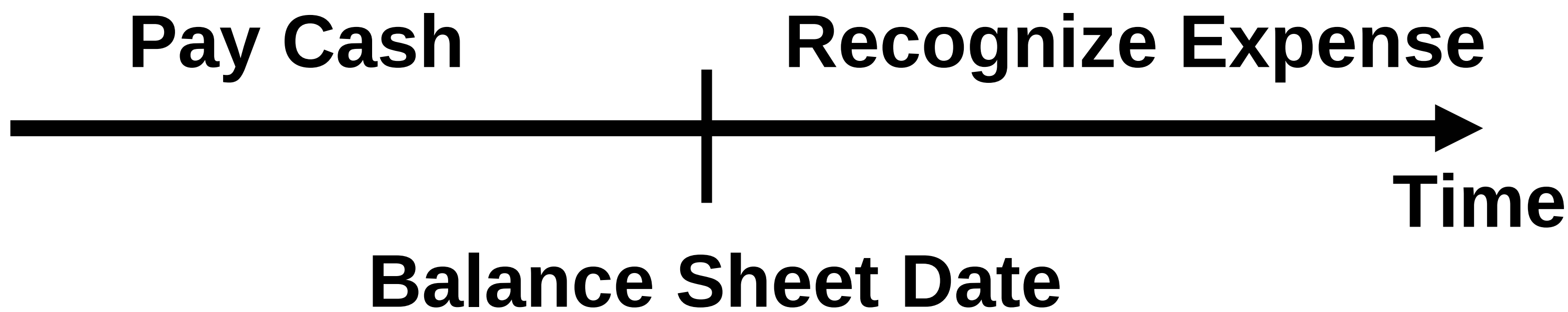
CASH

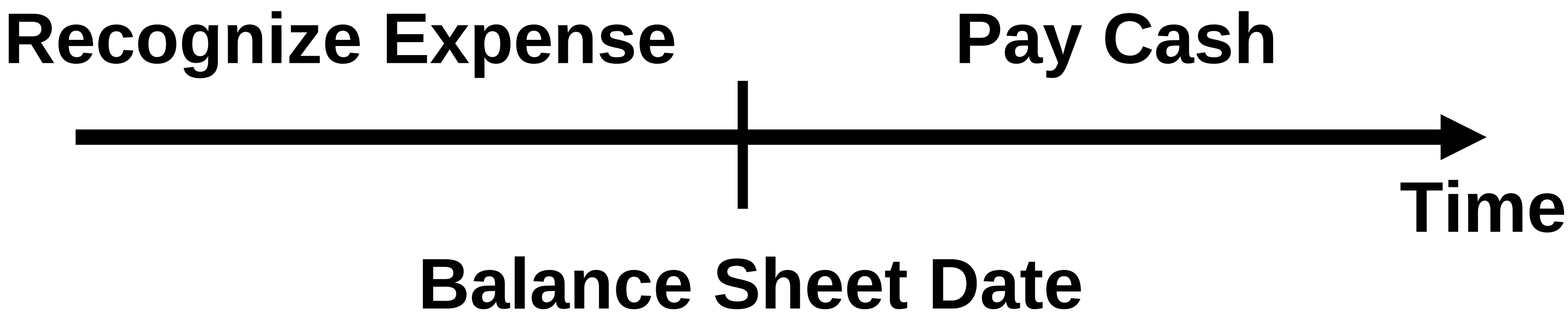
Dr		Cr
10,000 (1)	5,000 (3)	
03,000 (2)	9,000 (5)	
08,000 (4)	1,000 (6)	
06,000		

Summary

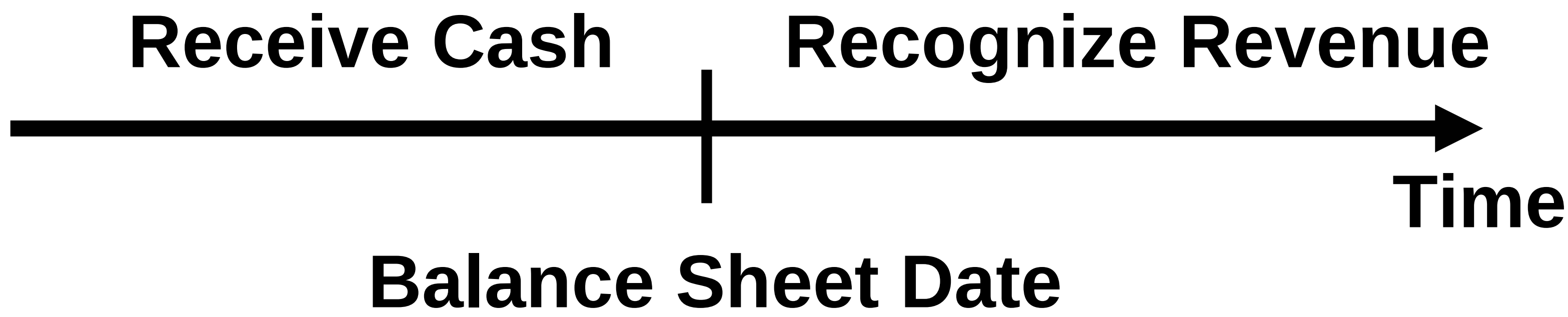
- T-accounts
  - Debit is Left
  - Credit is Right
  - Increases in Assets – Debits
  - Increases in liabilities – Credits
  - Increases in shareholders’ equity – Credits
  - Expenses are Debits
  - Revenues are Credits
- Use balances from T-accounts to prepare financial statements at the end of a fiscal period

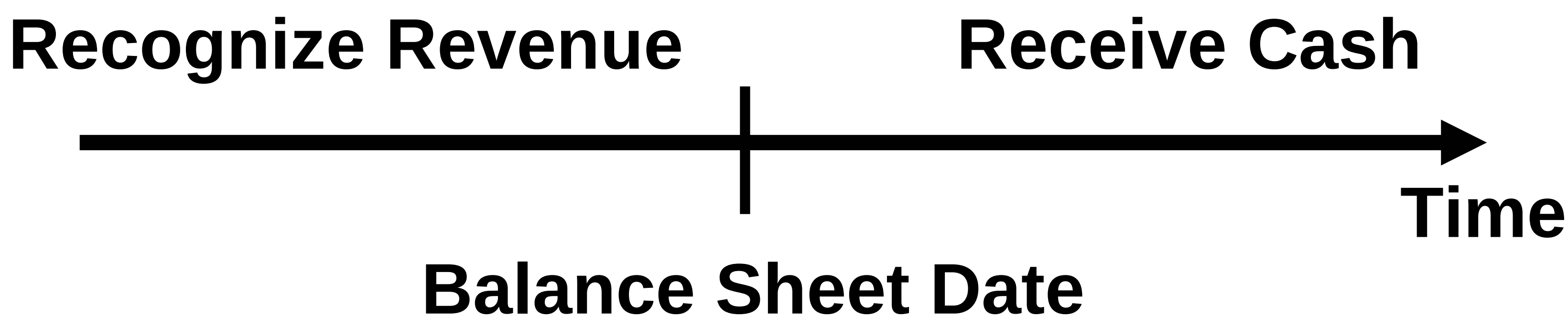
Adjusting entries: Recall four ways that recognition and cash do not coincide





Adjusting entries: Recall four ways that recognition and cash do not coincide





Accruals (Accrue Today, Cash Tomorrow)

- **Accrued Wages**
  - Employees of Taylor Motor are paid *at the end of each week.*
  - Payroll per day: $2,000
  - Weekly payroll: $10,000 (five working days)
  - Taylor's year ends on December 31.
  - Assume December 31, 2003 falls on a Tuesday
- On December 31, 2003
  - Taylor Motor has incurred wage expense for two days
  - But will not pay it in cash until Friday, January 3, 2004.

Accruals (Accrue Today, Cash Tomorrow)

- Periodic adjustment on December 31
- Assets = Liabilities + Owners' Equity
- Wages Payable Retained Earnings
- +4,000 -4,000
- **Dr Wage Expense (-RE) 4,000**
- **Cr Wages Payable (+L) 4,000**
- Effect of omitting this journal entry?
  - Liabilities are understated by $4,000
  - Retained earnings & Net income overstated by $4,000

Accruals (Accrue Today, Cash Tomorrow)

- What would you see on the balance sheet as of 12/31?
  - Wages Payable $4,000 under Liabilities
- What would you see on the income statement for the **year ended** 12/31?
  - Wage Expense of $520,000
  - 52 Weeks x $10,000 per week
- Without the adjusting entry
  - Wage expense would have been $4,000 less.
  - Expense would have been understated
  - Net income overstated

Accruals (Accrue Today, Cash Tomorrow)

- $10,000 paid on Jan. 3 of 2004.
- Assets = Liabilities + Owners' Equity
- Cash Wages Payable Retained Earnings
- -10,000 -4,000 -6,000
- **Dr Wage Expense (-RE) 6,000**
- **Dr Wages Payable (-L) 4,000**
- **Cr Cash (-A) 10,000**
- What would be the balance in the T-account for Wage Expense on January 3rd?
  - $6,000

Accruals (Accrue Today, Cash Tomorrow)

- Consider the $10,000 paid to the employees.
- Where and How would it show up in the financial statements?

	Period 1	Period 2
Cash Flow Statement		
Operating cash flow		-10,000
Income Statement		
Wage expense (-RE)	-4,000	-6,000

Cost Expirations (Cash Yesterday, Accrual Today)

- **Supplies Inventory**
  - During 1994 Deere and Company purchases (for cash) supplies in the form of spare parts to support the manufacture of farm machinery at a total cost of $700.
  - The company began the year with $500 in the supplies account.
- Assets = Liabilities + OE
- Cash Supplies
- -700 +700

Cost Expirations (Cash Yesterday, Accrual Today)

- On December 31, a count reveals that supplies in the amount of $300 remain on hand.
- Supplies Used = Beg. Inv. + Purchases - Ending Inventory
- = $500 + $700 - $300
- = $900

Assets	=	L	+	Owners' Equity
Supplies				Retained Earnings
-900				-900

- Dr Supplies Expense (-RE) 900
-     Cr Supplies Inventory (-A) 900

Cost Expirations (Cash Yesterday, Accrual Today)

Supplies Account

Beg bal	500	900	Supplies expense
Purchases	700		
Ending Inv	300		

- Supplies expense of $900 is the adjusting entry and the corresponding debit is to Retained Earnings (i.e., expense on the income statement that affects retained earnings).
- The Ending Inventory of $300 appears on the balance sheet (and it serves as the ending inventory for the current fiscal period and beginning inventory for the following fiscal period).

Cost Expirations (Cash Yesterday, Accrual Today)

- What shows up in the cash flow statement?
  - The cash paid during the year for purchase of supplies
  - Operating outflow = $700
- What shows up in the income statement?
  - The cost of supplies consumed during the year
  - Supplies expense = $900
- What shows up in the balance sheet?
  - Ending balance in Supplies of $300

Cost Expirations (Cash Yesterday, Accrual Today)

- **Pre-received revenues**
  - Unearned revenue
  - Fees received in advance
  - Customer advances
  - Subscription received in advance, etc.
- Time Warner receives $5,000 during 1994 for magazine subscriptions to be fulfilled during 1994 and 1995. Assume that as of the end of 1994 Time had fulfilled 60% of the subscriptions.

Cost Expirations (Cash Yesterday, Accrual Today)

- $5,000 received during 1994
- Assets = Liabilities + OE
- Cash Unearned Revenue
- +5,000 +5,000
- Dr Cash (+A) 5,000
- Cr Unearned Revenue (+L) 5,000
- What happens to this liability at the end of 1994?
  - Decreases by 60% because Time Warner delivers magazines in 1994.

Cost Expirations (Cash Yesterday, Accrual Today)

- Assets = Liabilities + Owners' Equity
- Unearned Revenue Retained Earnings
- -3,000 +3,000
- Dr Unearned Revenue (-L) 3,000
- Cr Subscription Revenue (+RE) 3,000
- Effect of omitting this entry?
  - Liabilities are overstated by $3,000
  - Retained earnings (income) **understated** by $3,000

Cost Expirations (Cash Yesterday, Accrual Today)

- Effect on financial statements?

	1994	1995
Operating cash inflow (+)	+5,000	
Subscription revenue (+RE)	+3,000	+2,000

- What do you see in the balance sheet as of 12/31/94?
  - Liabilities: Unearned Revenue = $2,000
  - Represents the obligation for unfulfilled journal subscriptions.

Summary

- Accrual accounting can be confusing!
- Understand the logic behind it and it will be clear.