

## SELF-STUDY ASSIGNMENTS USING THE QUANTUM TUTORS

The Quantum Tutors will help you understand core topics needed to be successful in accounting. Quantum doesn't cover every chapter in the textbook. Instead, we focus on those key topics defined by instructors as most difficult and challenging for students taking introductory accounting including:

- Transaction Analysis
- Adjusting Entries
- Financial Statement Preparation
- Inventories and Cost of Goods Sold
- Accounting for Receivables
- Plant Assets
- Statement of Cash Flows
- Cost-Volume-Profit

Because the Quantum Tutors are proven in research studies to improve test scores by at least a full letter grade, using this software is well worth your study time. Here's why:

### **Receive Step-by-Step Feedback on Your Own Work**

Because no two students learn alike, Quantum explains *why* your answers are right or wrong with individual, step-by-step feedback on your own work so you can quickly learn from your errors and not repeat them at test time.

### **Get Immediate Answers to Your Questions Day or Night**

Now you don't have to wait until the next day to ask your instructor a question or be embarrassed to ask questions during class. With Quantum, you can ask as many questions as you like before, during and after entering your work or attempting to solve a problem.

### **Reduce Study Time and Target Your Practice Where You Need the Most Help**

While using Quantum, you can pinpoint areas where you are the weakest and receive additional practice as needed. When you need more help, the software offers similar concepts and problems for you to work on to improve using "Targeted Practice".

To help you get the most out of the Quantum Tutors, we have included self-study assignments by topic (starting on page 2). **These assignments are based on scientific research from other students just like you that have used the software to achieve the greatest improvement in the shortest amount of study time.**

Completing these assignments will help your instructor evaluate your understanding of key accounting concepts and assign credit based on the effort you put into practicing. Instructors have access to assessment reports that audit all of your tutoring sessions and show how well you understand the material after each assignment. Use the software just as if you were sitting down with your instructor one-on-one to practice problems. Just put forth your best effort and you'll see immediate results.

**Let's get started!** If you don't already have a student account, please visit [www.quantumtutors.com](http://www.quantumtutors.com) to purchase a subscription to the Quantum Tutors for Accounting.

## SELF-STUDY ASSIGNMENTS

### TRANSACTION ANALYSIS

*Learning Objective:* The Transaction Analysis Tutor will help you understand the effect of various types of transactions on the accounting equation, the company's asset, liability and equity accounts, general journal and ledger.

#### Assignment 1

From the problem selection page for the Transaction Analysis Tutor, complete **3-5 problems** of your choice, attempting all transactions for each problem including the accounting equation, accounting journal and accounting ledger.

#### Assignment 2

Based on scientific research of students using the Quantum Tutors, there are frequently missed transaction types that students struggle with the most (see below). From the problem selection page for the Transaction Analysis Tutor, use the "Targeted Practice" feature in the left column to complete each transaction type or other types as required by your instructor. Be sure to attempt **3-5 transactions for each transaction type** (e.g. 3-5 transactions for Prepaid expenses) including the accounting equation, accounting journal and accounting ledger.

- Prepaid expense
- Incurred expenses on account
- Received payment in advance of services
- Received payment on account
- Paid cash for expenses
- Paid on accounts payable
- Purchased equipment with cash and credit

### ADJUSTING ENTRIES

*Learning Objective:* The Adjusting Entries Tutor will help you understand accrual-based accounting. You will learn how to adjust balance sheet and income statement accounts in journal entry format and allocate income and expenditures to the period in which they were either earned or occurred.

#### Assignment 1

From the problem selection page for the Adjusting Entries Tutor, complete **3-5 problems**, attempting all adjusting entries for each problem including the accounting equation, accounting journal and accounting ledger.

#### Assignment 2

Based on scientific research of students using the Quantum Tutors, there are frequently missed transaction types for adjusting entries that students struggle with the most (see below). From the problem selection page for the Transaction Analysis Tutor, use the "Targeted Practice" feature in the left column to complete each transaction type or other types as required by your instructor. Be sure to attempt **3-5 transactions for each transaction type** (e.g. 3-5 transactions for Adjusting for deferred revenue) including the accounting equation, accounting journal and accounting ledger.

- Adjusting for deferred revenue
- Adjusting for accrued wages
- Adjusting for prepaid expenses used
- Adjusting for depreciation
- Adjusting for supplies used

## FINANCIAL STATEMENT PREPARATION

*Learning Objective:* The Financial Statement Preparation Tutor will help you understand the trial balance and how to prepare the income statement, statement of retained earnings or statement of owner's equity and balance sheet.

### Assignment 1

From the problem selection page for the Financial Statement Preparation Tutor, use the "Targeted Practice" feature in the left column to complete each of the following statements. Depending on what method your textbook uses, complete Corporation or Proprietorship:

#### **Corporation:**

- Trial Balance
- Income Statement
- Statement of Retained Earnings
- Statement of Stockholder's Equity
- Balance Sheet

**-OR-**

#### **Proprietorship:**

- Trial Balance
- Income Statement
- Statement of Owner's Equity
- Balance Sheet

## INVENTORIES AND COST OF GOODS SOLD

*Learning Objective:* The Inventories and Cost of Goods Sold Tutor will help you better understand the FIFO, LIFO and weighted average cost flow models and how businesses use them to calculate the cost of goods sold. You will also learn how these inventory costing methods affect the business's financial statements.

### Assignment 1

From the problem selection page for the Inventories and Cost of Goods Sold Tutor, select **Cost Flow Calculation** and complete **2 problems** each for the FIFO, LIFO and weighted average cost flow methods. Select the perpetual or periodic inventory system according to which is taught in your accounting course.

### Assignment 2

From the problem selection page for the Inventories and Cost of Goods Sold Tutor, select **Financial Statement Effects**, then select either the FIFO, LIFO or weighted average cost flow method (as you prefer), and select the perpetual or periodic inventory system according to which is taught in your accounting course. Then, complete **2 problems** on the effect on the financial statements for each type of change to the sales and inventory scenario: number of product units sold, product unit price, product unit cost, and cost flow method.

## ACCOUNTING FOR RECEIVABLES

*Learning Objective:* The Accounting for Receivables Tutor will help you record activities related to accounts receivable and adjustments for bad debts expense using the percentage of credit sales, percentage of receivables and aging of receivables methods.

### **Assignment 1**

From the problem selection page for the Accounting for Receivables Tutor, select the **Percentage of Credit Sales Method** to practice estimating bad debts expense by multiplying the current year's credit sales by the percentage of bad debt losses from past years. Selecting 2-3 years will ensure you have enough practice with this method.

### **Assignment 2**

From the problem selection page for the Accounting for Receivables Tutor, select the **Percentage of Accounts Receivable Method**. The amount of accounts receivable that is likely to be uncollectible is estimated by multiplying the current accounts receivable balance by the percentage of uncollectible receivables from past years. Selecting 2-3 years will ensure you have enough practice with this method.

### **Assignment 3**

From the problem selection page for the Accounting for Receivables Tutor, select the **Aging of Accounts Receivable Method**. This method, like the percentage of receivables method, estimates the amount of accounts receivable that is likely to be uncollectible. However, instead of multiplying total accounts receivable by a single percentage, the aging method considers that the longer an account is outstanding the more likely it is that it will not be collected, and multiplies older accounts by larger percentages. Selecting 2-3 years will ensure you have enough practice with this method. If you have not already done so, also check **Include Write-Offs** to practice recording write-offs of bad debts.

## PLANT ASSETS

*Learning Objective:* The Plant Assets Tutor will help you prepare adjusting entries for depreciation of a plant asset using the straight-line, units-of-production and double-declining-balance methods. You will also learn how each of these depreciation methods affect the financial statements.

### **Assignment 1**

From the problem selection page for the Plant Assets Tutor, select the **Straight-Line Method**. This is the simplest and most often-used method, in which an equal amount of depreciation is reported in each year of the asset's useful life. Selecting 2-3 years will ensure you have enough practice with this method.

### **Assignment 2**

From the problem selection page for the Plant Assets Tutor, select the **Units-of-Production Method**. In this method, the asset's useful life is expressed in terms of the total number of units it is expected to produce, and depreciation is calculated from the number of units produced in the current year. Selecting 2-3 years will ensure you have enough practice with this method.

### **Assignment 3**

From the problem selection page for the Plant Assets Tutor, select the **Double-Declining-Balance Method**. This method gives depreciation that is greater in the early years of an asset's useful life and less in the later years. Depreciation is calculated by multiplying the asset's book value by a fixed rate each year. Selecting 2-3 years will ensure you have enough practice with this method. If you have not already done so, check **Include Partial Year** to practice calculating depreciation when less than a full year of depreciation is involved.

## STATEMENT OF CASH FLOWS

*Learning Objective:* The Statement of Cash Flows Tutor will help you better understand how to classify business activities as operating, investing or financing and the concepts and steps required to prepare the statement of cash flows using the indirect method.

### **Assignment 1**

From the problem selection page for the Statement of Cash Flows Tutor, select **Classify Activities** and practice classifying the activities presented as operating, investing or financing, as well as determining their effect on cash and net income. These are important concepts central to preparing the Statement of Cash Flows.

### **Assignment 2**

From the problem selection page for the Statement of Cash Flows Tutor, select **Indirect Method** and practice determining the adjustments needed to find net cash flow from operating activities by the indirect method. This often ranked as the most challenging part of preparing the Statement of Cash Flows, so practicing it is very beneficial.

### **Assignment 3**

From the problem selection page for the Statement of Cash Flows Tutor, select **Statement of Cash Flows** and complete **3-5 problems** of your choice. Depending on the type of business your textbook uses, select Corporation or Proprietorship.

## COST-VOLUME-PROFIT

*Learning Objective:* The Cost-Volume-Profit (CVP) Tutor covers the topics Revenue and Cost Behavior, Contribution Margin, Break-Even Analysis, Targeted Profit Analysis and Margin of Safety. Each topic (except Revenue and Cost Behavior) offers two practice modes: *guided practice*, which focuses on initially learning the processes, concepts and accounting terminology used in the topic, and *independent practice*, which focuses on practicing the knowledge you have gained to become fluent with CVP problems. These practice modes were designed from research on how students learn CVP topics.

### **Assignment 1**

From the problem selection page for the Cost-Volume-Profit Tutor, select the topic that you are currently studying in your accounting course, then select the guided practice mode. Complete the **3 problems** presented by the Tutor for guided practice, which will take you from studying a worked example problem through completing a similar problem on your own.

### **Assignment 2**

From the problem selection page for the Cost-Volume-Profit Tutor, select the topic that you are currently studying in your accounting course, then select the independent practice mode. **Complete 3-5 problems** presented by the Tutor, which you will complete on your own with feedback from the Tutor when you make a mistake.