

## **15.516x Financial Accounting**

**Faculty Member(s):** Prof. John Core

**Length:** 12 Weeks

**Related Course(s) at MIT:** 15.516 and 15.515

**Suggested Prerequisites:** None

This course provides a rigorous introduction to the principles of financial accounting. We will focus on the preparation and analysis of financial statements, and on why financial statements take the form they do. We will cover the basic structure of financial reports and the process of recording transactions. We will also learn how investors, creditors, and other users analyze financial statements to assess corporate performance. This course will focus on using the financial statements to gather inputs to valuation models and for corporate finance decisions.

### **What you'll learn (at a glance):**

- Understand accounting terms
- Understand how financial statements are constructed
- Learn to read financial statements
- Gather inputs to valuation models and for corporate finance decisions

This class shares most of the content with MIT's Masters of Finance course 15.516.

**Approximate total time of lecture videos:** 18 hours, including recitation videos

**Grading:** 10% graded problem sets, 90% proctored final exam

### **Course Materials**

- **Optional Textbook (TEXT):** Hanlon, Magee, Pfeiffer, Dyckman, *Financial Accounting* (6e). Cambridge Business Publishers.

### **Course Structure**

This course consists of:

- A course introductory lecture (Week 0);
- 10 Lectures, 9 Problem Sets, 9 Recitations demonstrating how to solve problems similar to those contained in the problem sets (Weeks 1–10); and
- 1 proctored Final Exam (Week 11)

| WEEK   | TOPIC   |
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| Week 0 | <b>Course Introduction and How to Take this Course</b>  |
| Week 1 | <b>Overview; Introduction to Accrual Accounting</b> <ul style="list-style-type: none"> <li>• Dreamworks case to illustrate the importance of accounting in setting stock prices</li> <li>• Importance of estimates, which we call “accruals”</li> <li>• Relevance vs. reliability</li> <li>• The Balance Sheet Equation (BSE)</li> <li>• Example: Recording transactions and constructing financial statements</li> </ul> <b>Problem Set 1</b><br>Optional reading: TEXT Ch. 1, 2, 3      |
| Week 2 | <b>Revenue Recognition; Allowance Accounting</b> <ul style="list-style-type: none"> <li>▪ Importance of Revenue Recognition</li> <li>▪ Example: Recognized Revenue and Deferred Revenue</li> <li>▪ Examples from real companies</li> <li>▪ Credit sales and estimating bad debt expense</li> <li>▪ Methods for estimating bad debts: Percent of Sales and Aging</li> <li>▪ Interpreting firms’ disclosures about bad debt</li> </ul> <b>Problem Set 2</b><br>Optional reading: TEXT Ch. 6 |
| Week 3 | <b>Inventory and IFRS; Long-Term Assets</b> <ul style="list-style-type: none"> <li>▪ Inventory and inventory accounting</li> <li>▪ LIFO vs. FIFO methods</li> <li>▪ Adjusting firms to LIFO for comparability</li> <li>▪ IFRS vs. US GAAP</li> <li>▪ Accounting for property, plant, and equipment (PPE)</li> <li>▪ Examples: Acquisition, depreciation, change in estimate, and sale</li> <li>▪ Hertz case</li> </ul> <b>Problem Set 3</b><br>Optional reading: TEXT Ch. 7, 8            |
| Week 4 | <b>Intangible Assets; Statement of Cash Flows</b> <ul style="list-style-type: none"> <li>▪ When Intangible assets are on-balance sheet</li> <li>▪ Example: Comparing Athena Health and Cerner</li> <li>▪ Amazon case: Purpose of the statement of cash flows; the three sections of the statement; and how cash flow from operations reconciles with net income</li> <li>▪ Importance of free cash flow</li> </ul>  |

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|               | <b>Problem Set 4</b><br>Optional reading: TEXT Ch. 4  |
| <b>Week 5</b> | <b>Acquisitions; Financial Investments</b> <ul style="list-style-type: none"> <li>▪ Using AT&amp;T's acquisition of DirecTV, examine purchase accounting for acquisitions</li> <li>▪ How acquisition affects acquiror's balance sheet and income statement</li> <li>▪ Goodwill and goodwill impairment</li> <li>▪ How financial investments are reflected on companies' balance sheets and income statements</li> <li>▪ Accounting for passive investments of less than 20%</li> <li>▪ Equity method accounting for investments of more than 20% but less than 50%</li> <li>▪ Consolidation accounting for investments of more than 50%</li> </ul><br><b>Problem Set 5</b><br>Optional reading: TEXT Ch. 12                         |
| <b>Week 6</b> | <b>Introductory FSA</b> <ul style="list-style-type: none"> <li>▪ Comparing and evaluating companies using Financial Statement Analysis</li> <li>▪ Using Amazon and Walmart: Compute Liquidity / Solvency Ratios; Profitability Ratios; and Efficiency Ratios</li> <li>▪ DuPont method: How profit margin, leverage, and asset turnover drive return on equity</li> </ul><br><b>Income Taxes</b> <ul style="list-style-type: none"> <li>▪ Temporary differences; deferred tax assets and liabilities</li> <li>▪ Interpreting tax disclosures</li> <li>▪ Effective tax rate and permanent differences</li> <li>▪ Net Operating Losses and Valuation Allowances</li> </ul><br><b>Problem Set 6</b><br>Optional reading: TEXT Ch. 5, 10 |
| <b>Week 7</b> | <b>Long-Term Debt; Leases</b> <ul style="list-style-type: none"> <li>▪ Accounting for bonds</li> <li>▪ Early retirement of debt</li> <li>▪ Financial statement presentation</li> <li>▪ Motivation for leases</li> <li>▪ Accounting for Finance vs. Operating leases</li> <li>▪ Capitalizing off-balance sheet items</li> </ul>  |

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|                | <b>Problem Set 7</b><br>Optional reading: TEXT Ch. 9, 10   |
| <b>Week 8</b>  | <b>Shareholders' Equity and Earnings per Share</b> <ul style="list-style-type: none"> <li>▪ Accounting for stock issuance, repurchases, and dividends</li> <li>▪ Stock splits</li> <li>▪ Stock compensation, preferred stock, and convertibles</li> <li>▪ Using the cash flow statement to understand financing</li> <li>▪ Basic and Diluted Earnings per Share</li> </ul> <b>Problem Set 8</b><br>Optional reading: TEXT Ch. 11 |
| <b>Week 9</b>  | <b>Accounting for Banks</b> <ul style="list-style-type: none"> <li>▪ Overview of bank financial statements</li> <li>▪ Intuition for regulation and regulators' focus on leverage</li> <li>▪ Major accounting issues in banks</li> <li>▪ Recent changes in accounting for loan losses</li> </ul> <b>Problem Set 9</b>   |
| <b>Week 10</b> | <b>Tesla case; Summary and Review</b> <ul style="list-style-type: none"> <li>▪ Use Tesla's financial statements to review: <ul style="list-style-type: none"> <li>○ Taxes</li> <li>○ Acquisitions</li> <li>○ Equity and debt issues</li> <li>○ Leases</li> <li>○ Diluted shares</li> <li>○ Cash flow</li> </ul> </li> </ul>  |
| <b>Week 11</b> | <b>Final Exam</b>  |