

DUKE UNIVERSITY, FUQUA SCHOOL OF BUSINESS
ACCOUNTG 441: Financial Statement Analysis
Daytime MBA Spring Term 1, 2009

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1. Overview

This course examines the role of financial statement analysis in the evaluation of a firm and the prediction of its future condition. The course is designed to provide:

- a framework and the skills to analyze and interpret financial statements
- exposure to public sources of financial information used in capital markets
- an appreciation for the usefulness and limitations of financial statement analysis in specific decision contexts.

The course is targeted to a wide range of students, including those preparing for careers in general management as well as in investment banking, financial analysis and consulting. The topics covered (see Item 8 below) are intended to complement those discussed in ACCOUNTG 442 (Valuation). The material is designed for students with little or no background in security analysis. I assume a solid understanding of financial accounting and finance. I also expect that you are comfortable with working with Excel spreadsheets and with collecting data from various databases, both from on-line and/or in the library.

2. Course materials

- Required course packet: contains teaching notes, assignments, and readings.
- Required textbook:

Financial Reporting and Statement Analysis – A Strategic Perspective, 6th edition, by Stickney, Brown, and Wahlen, Thomson/South-Western. ISBN: 0-324-30295-9.

The book is available from Duke University's bookstore. You can also purchase it from Amazon.com or other vendors. I highly recommend that you get a copy of the book. It provides a comprehensive coverage of all the topics in this course. You will find it valuable as the course is fairly fast-paced. In the course schedule, the book is referred to as SBW.

- Course website. There is a password protected website for the course. The website address is: <http://faculty.fuqua.duke.edu/~qc2/accountg441/> . I will post relevant course materials (such as spreadsheets to the cases) to the website.

3. Course grade

Fuqua has established a recommended grade distribution for elective courses (no more than 30% SPs, 45% HP, and at least 25% P, LP and F). Your grade in this course will be based on:

| <u>Component</u> | <u>Percent of grade</u> | <u>Due date</u> |
|-----------------------------------|-------------------------|-----------------|
| Class participation | 15% | n/a |
| Team Case deliverables | | |
| Electrona Corporation | 5% | Session 3 |
| Choose one of the following two:* | 10% | |
| Royal Caribbean | | Session 6 |
| Bishay Industries | | Session 11 |
| Take-home individual case | 20% | Session 8 |
| In-class midterm exam | 35% | Session 10 |
| Final team project | 15% | Session 12 |
| Total: | 100% | |

*You have the option to write up both Royal Caribbean and Bishay and use the higher score of the two for this part of the grade.

4. Case preparation, discussion, and class participation

This course relies heavily on cases, which are very important pedagogical tools for this course. A significant amount of learning takes place from analyzing companies' financial statements. These cases would require substantial preparation on your part. We will have at least one case discussion for almost all classes. I expect all students to arrive in class ready to open the case and provide meaningful contributions to the class discussions.

Many cases will represent your first exposure to a particular issue or problem. In those instances, you are expected to read ahead and work through the case questions to the best of your ability. The intent of structuring and timing the cases in this fashion is to stimulate, rather than solidify, your thinking and the class discussions.

As you will see throughout the course, many case questions are qualitative in nature and the answers to these questions depend on your assessment of the company's situation. As such, there is no "official" answer to these questions, and no "official" solutions will be available or posted. With the exceptions of a few pro-forma exercises, I will not post my "solution" in spreadsheet forms. Please pay attention to class discussions and to learn to come to your own conclusion based on these discussions.

All case deliverables are due at the beginning of the class and are to be completed in teams. (See item 6 on Teamwork and evaluation for details.) I will not accept late assignments. Each team needs to submit only one copy of the case write-up. Each case write-up should be no more than 3-4 pages, with at least 10 points font size, properly margined and spaced. Supporting spreadsheets do not count for case pages but should not exceed 5 pages in total. Supporting spreadsheets should be prepared just as carefully and as easily readable as your main write-up. A core dump printing of all your spreadsheets will not be read and will not earn you any grade.

You should be prepared to discuss each case in the designated class session. This includes cases that have write-ups and those that do not. It is important that you work through all cases before coming to class. A significant part of your course participation grades will depend on your participation in case discussions (especially those that do not have write-ups). Other determinants of your course participation grades include your record of class attendance.

5. Practice problems, exams and group final project

There will be a take-home midterm and an in-class midterm exam. The midterm take-home is an individual case analysis. It will be made available to you after Session 7. It is due at the beginning of the Session 8.

The in-class exam is comprehensive and covers all materials we will have discussed up to the exam date. It will take place at the scheduled class time.

Both the take-home and in-class exams are **open book and open note**. They are to be completed individually, and should reflect original individual work. For the take-home midterm, you cannot discuss the exam with anyone before the exam's due date. Doing so is considered a violation of the Fuqua Honor Code. For the in-class exam, you are allowed to bring calculators and laptops provided that you disable your laptop's ability to access the internet.

For each topic, I have selected some representative problems from the textbook (listed on page 4 under item 8). I highly recommend that you use them as practice problems. I also include some sample exam questions in the course packet for you to prepare for the in-class exam.

The final team project should be done by the same team for the case deliverables. In the project, you will analyze the financial performance of a company of your choosing. Detailed instruction on the project is given at the end of this syllabus.

6. Teamwork and evaluation

Please choose your own team members. The minimal number of members in each team allowed is 4 and the maximum is 6. Team members can be from different sections. Team assignments are due at the first session of any member.

At the end of the term, you will be asked to assess confidentially the contribution of the individuals in your team. As such, team membership must be maintained throughout the course. Your team grade (including both the grades for case deliverables and the grade for the final project) will be adjusted by your team evaluation. For example, if your team has a perfect score (say, 100 points) on all team assignments, but all your team members believe you contributed only 50% of what other team members have contributed, then your score for the team cases will only be 50 points.

7. Honor Code

The Honor Code of the Fuqua School applies at all times. All individual assignments should reflect only your own effort. For group assignments you may collaborate with only members of your own group. Discussions of the individual assignments with anyone, or discussions of

the group assignments with anyone outside your own group, before you turn in the assignments are prohibited and are considered a violation of the Honor Code. It is a violation of the Honor Code to share materials from this class with individuals not in this class or to use materials for this class that come from individuals who have taken ACCOUNTG441 in the past.

8. Course Outline:

| Session | Topic | Readings and assignments |
|-----------|--|--|
| Session 1 | Introduction Segment disclosure Industry analysis | SBW: Ch. 1 Note on US regulatory filings Note on Sarbanes-Oxley Acts Note on Financial Statements Financial Ratio Formula Summary Sheet In class discussion: Identify the industries |
| Session 2 | Profitability (Dupont) analysis ROE, ROA, ROIC | SBW: Ch. 4 Note on ROIC Note on Operating Leverage In class discussion: Costco & Target Suggested practice problems: 4.11, 4.14, 4.20, 4.21 |
| Session 3 | Ratio analysis | <u>Case due: Electrona Corporation</u> |
| Session 4 | SCF: preparation and analysis | SBW: Ch. 3 Note on Statement of Cash Flow “Defining Free Cash Flow.” In class discussion: Three examples of SCF Suggested practice problems: 3.15, 3.20, 3.21, 3.22 |
| Session 5 | DCF valuation Pro forma I | SBW: Ch. 10 Note on Pro Forma Forecasting In class discussion: Movie Night Inc. Pro Forma Suggested practice problems: 10.10, 10.11, 10.15, 10.16 |
| Session 6 | Pro forma II Review on Inventory Review on leases | <u>Case due: Royal Caribbean</u> Note on leases Suggested practice problem: 7.14, 8.4, 8.16 |
| Session 7 | Earnings quality and earnings management I: accounting methods and estimates | In class discussion: Harnischfeger Suggested practice problems: 7.5, 7.15 |
| Session 8 | Earnings quality and earnings management II: revenue and expense recognition | <u>Take-home individual case due</u> In class discussion: TSAI, Inc. Suggested practice problems: 7.1, 7.10, 7.13, 7.16 |
| Session 9 | Securitization of A/R | SBW: Chapter 8, page 528-534 on off-balance-sheet |

financing arrangements
Suggested practice problem: 8.10

Session 10 In-class exam

In-class midterm exam

Session 11 Credit risk analysis (ratio and
pro forma)

SBW: Ch. 5
“Z Scores -- A Guide to Failure Prediction.”
Case due: Bishay Industries
Suggested practice problems: 5.11, 5.18, 5.19

Session 12 **Final project presentation**

Final Group Project and Presentation Guideline and Requirements

Objective:

The group project requires you to conduct a complete analysis and valuation of a business. A key feature of the project is that it requires you to identify and obtain the relevant information. Thus, in addition to being evaluated on your ability to apply the tools of analysis described in the course, you will also be evaluated on your ability to identify and obtain the relevant information. Your analysis should provide solid support for the assumptions and forecasts that drive your valuation.

Company choice:

You should choose a company on your own for the final project, with the following constraints.

- The company has to be a publicly traded company whose securities are traded in the US exchanges. It can be a US domestic company or an international company, as long as it files its 10K or 10K equivalent (such as 20F for ADRs) with the SEC, following the US GAAP.
- It can NOT be a company that any of the team members has had extensive insider experiences with (which includes previous employment or in-depth consulting relationship). However, to allow you to incorporate your industry-specific knowledge, you are allowed to pick a competitor company in the same industry as your previous employer(s) or client(s).
- Your analysis should use only publicly available information. Do not use inside information obtained from personal company contacts etc.
- All company choices need to be approved by me beforehand. You need to inform me of your choice no later than session 10.

Write-up Guideline and Requirements:

Your analysis should be guided, but not constrained, by the steps described in the course, briefly outlined below. Depending on the company that you analyze, you may need to focus more on some parts of your analysis than the others. For example, for a poorly performing company bordering on bankruptcy, you may focus relatively more on their survivability and less on their equity valuation.

1. **Business Strategy:** Briefly describe the company's industry and specific lines of business, discuss its strategy for success and, most importantly, the sustainability of profits generated by the strategy. Based on this qualitative analysis, do you think the firm's future return on equity will exceed, meet, or fall below, its cost of equity capital, and why? Please do not simply repeat the company overview from the 10K.
2. **Financial Analysis:** Use ratio analysis and/or cash flow analysis to evaluate the current and past performance of the business and assess its sustainability. You should definitely compare your company to some peers in the same industry. You should think about what comparable firm(s) to choose and why and provide at the minimal a comparative analysis of the ratios calculated above for the firm and the comparable firm(s). If you believe the quality of the company's financial reporting accounting has been compromised by the choices of the management, you should also explicitly state your concerns and reasons.

3. **Forecasting:** Forecast the firm's future income statements and balance sheets. This is the heart of the project so provide specific justification for each major component of your forecasts. Is the forecast based on past trends, comparisons with other firms in the industry, an industry report (such as found at <http://www.netadvantage.standardandpoors.com/> from the library's web page), or your gut feel? How does your forecast for the next few years compare with analyst forecasts? Finding relevant data from outside the firm's own financial statements to guide your forecasts is particularly valuable here, but please only access publicly-available data; do not use inside information that you may have gathered from personal contacts in the company.
4. **Valuation:** Use the discounted cash flow model to produce and estimate of firm value. Focus on the value of a share of common stock in that company and compare your valuation to the market valuation, providing possible explanations for any differences. You may also want to conduct a sensitivity analysis by varying your discount rate and other crucial assumptions. Think about what discount rate to use.

Project Length:

I would like the project write-up to be a readily comprehensible and condensed report of your work (i.e., not a detailed compilation of all the information you collected and all the various valuation scenarios you considered). Accordingly, your write-up is limited to no more than five pages of text and five pages of supporting tables. Please cite any sources for data used in your financial analysis or forecasts, such as industry reports. Also please provide in your writeup the URL link to the firm's 10K filing that you are analyzing.

Due Date:

You should submit your final project analysis, including a Word/PDF document for writeup, an Excel spreadsheet for pro forma, and a PowerPoint file presentation, electronically to the course website before the beginning of Session 12. You should also turn in a hardcopy printout of your writeups and powerpoint slides at the beginning of Session 12.

Presentation guideline:

Each group will be required to make a PowerPoint presentation during our last session(s).

You should present your analysis from the perspective of a potential investor. Your audience is the management team of a mutual fund company. They had hired you, as the financial expert, to provide advice on whether the fund should invest in the company your team analyzed. You should not assume your audience (the mutual fund management team) is completely informed about the company. You can presume that your audience is knowledgeable about the basics, not necessarily the subtlety, of fundamental analysis.

Your presentation should contain a clear recommendation for buy or sell, with important risk factors outlined for the mutual fund management to consider. Your presentation should be organized to highlight the key points of your analyses. These key points should be relevant for your final recommendation.

Each presentation will have a maximum of 10 minutes, during which the audience is free to ask questions. All members of the presenting team can respond to questions.