FIN 495.01: Capstone

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Course Objectives:

This course is essentially a capstone course in that it draws together elements of other courses you have experienced thus far. The course will require you to apply concepts, principles, and analytical methods from corporate finance in a comprehensive manner. You will be doing extensive outside research as we progress through this course. The goal is to provide you with experiences similar to those faced in the workplace where information is often imperfect and data are often vague or ambiguous. The goal of the course is to provide you with a framework that will allow you to enhance your ability to analyze complex financial problems faced by real-world managers and to become proficient in techniques used in valuation of financial assets.

BECAUSE THIS COURSE COVERS A LARGE AMOUNT OF MATERIAL IN A SHORT TIME, IT WILL BE EXTREMELY DIFFICULT FOR YOU TO RECOVER IF YOU FALL BEHIND! In addition, the course will use many previously introduced concepts from finance, financial accounting, and statistics courses. We will spend only limited class time reviewing concepts from these courses. Therefore, you should be prepared to review the material from these courses outside of class. Performing a thorough analysis requires a good deal of work. You should expect to spend time outside of class preparing your analyses.

It has been suggested that this course is equivalent to FIN 301, Financial Statement Analysis. You should be advised that financial statement analysis is only a small part of what this course is about.
**Prerequisites:**

You are expected to have had BADM 270, BADM 322, FIN 429 and FIN 439 (FIN 439 may be taken concurrently with this one).

**Required Materials**


**Second Text:** Either of the following texts will be needed as a reference tool:


**Software and Websites:**

1. It will be necessary to be familiar with EXCEL.

2. At various points in the course, in our discussions various websites will also be referenced. You will need to access these sites as most of your research will be done via the web.

**Calculator:**

You will need a calculator for this course. Any calculator which has a regression function as well as NPV calculator will work. The best for the money and my personal preference is the Hewlett Packard HP 12C. The Bookstore does not offer the HP 12C. However, a computer can also be used as well.

**Expectations:**

This course has a reputation of being among the more difficult of Finance courses. That is probably true. The difficulty is a result of the nature of the material. I will try to make it as easy as possible for you to master the material; however, you must be prepared to work, and work hard, to do well in the course. This means that:

1. You are expected to have completed the assigned reading prior to class. I cannot stress this enough. If you do not get the readings done prior to class, you will not get everything you can out of the lectures, as in preparing the lectures I will assume that the reading has been done and will only cover what I think are the more difficult issues. Note that this is not "easy" reading.
You may have to read the chapter(s) a few times to get it, so give yourself plenty of time. After each lecture go over the chapter(s) again. You should find that some points that were confusing have been clarified. Remember, read the chapter(s) before class, go to class, than read the chapter(s) again.

2. You should also keep yourself informed of the current events regarding financial matters. These regularly appear in the financial press such as the Wall Street Journal. I plan to work these current events in the financial world into the lecture to the extent possible.

3. You should also review the cases at the end of a chapter. These cases will not only illustrate the concepts in the text but will also give guidance for your own analysis.

4. I plan to provide any class announcements and other notifications by email. I must have a functioning email address for you (i.e., one that you check regularly and one which does not get filled up thereby not allowing additional email). You should check this frequently.

5. If you miss a class session, it is your responsibility to acquire class notes and any handouts or other material from your classmates. Form a "buddy system."

6. You are expected to come to lectures prepared. If you have not studied the assigned chapter(s) and have not attempted to understand the nature of the discussion, you are unlikely to benefit from the lectures.

**Grading:**
Grading will be based on the following:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PERCENTAGE</th>
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<tbody>
<tr>
<td>Project Submission 2</td>
<td>20%</td>
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<tr>
<td>Project Submission 3</td>
<td>20%</td>
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<tr>
<td>Project Submission 4</td>
<td>20%</td>
</tr>
<tr>
<td>Final Project Submission</td>
<td>40%</td>
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</tbody>
</table>

**Project Grading:**
The first submissions (Submissions 2, 3, and 4) of the project will be graded for content only. The final project submission is essentially the previous submissions corrected for errors and/or omissions and then combined into a coherent report. As a result, the final project submission will not only be graded for content but also it will be graded for presentation (i.e., organization, grammar, spelling, punctuation, neatness, etc.).

**Exams:**
There are no exams in this course. There is no final exam in this course.
**Class Participation:**

Class participation is strongly encouraged. It will help you understand the material better, and your questions will usually help others as well. Demonstration of knowledge of course material through verbal participation in class discussions may be a factor in assigning final grades to students in borderline cases.

**Grading Policy:**

The historical average grade point in previous similar courses has been 3.5 to 3.6. This should be a reasonable expectation of the current course grade average.

**Extra-Credit Assignments:**

In fairness to all other students, there will be no extra-credit assignments. Requests for extra credit assignments to make up for a poor performance on a project submission or in the course will not be granted.

**Return of Graded Paperwork:**

Returned paperwork, unclaimed by a student, will be discarded after 2 weeks, and will not be available should a grade appeal be pursued by a student following receipt of his/her course grade.

**Course Policies:**

Requests for incomplete grades, action related to academic dishonesty, and other administrative actions will be handled according to the policies established by the University and the School of Business Administration (SOBA).

**Incomplete Policy:**

Do not ask for a grade of incomplete for the course simply because you are doing poorly in the class. The University and SOBA have established clear-cut and highly restrictive limitations on when the grade of incomplete can be granted, and what the contractual obligations of the parties entail (see Academic Policy and Procedures@ in the University catalog). Note that an incomplete can only be granted after the 12th week. If you receive an "IN" from this course, you will be required to provide the missing material according to University policy. **Failing to submit the final report WHEN DUE will result in an automatic incomplete (IN) in the course.**

**Academic Dishonesty:**

The use of unauthorized material, plagiarism, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination, or other class work is
unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior. Where a clear violation has occurred, however, the instructor may disqualify the student's work as unacceptable and assign a failing mark on the paper. Please refer to the Student Conduct Code for specific information.

**Project Submission Policy:**

You are required to turn in the final project WHEN DUE. Likewise, interim project submissions must be submitted when due.

**Exception to Submission Policy:**

The only exception to the above policy involves a student's absence representing the University as a member of a group, team, or organization in a University sponsored activity (not merely a University sanctioned activity). In such case, the student must advise me in writing at least one week prior to the required submission and will be allowed to reschedule his or her submission.

**Personal Financial Problems Policy:**

It is a conflict of interest for an instructor to give personal financial advice to a student in this class. The instructor will not answer personal financial questions.

**How Can You Do Well In This Course?**

This course has a reputation of being among the more difficult of the elective courses in the program. This is primarily due to the nature of the material, which some students find difficult or at least not intuitive. The material for this course can only be absorbed gradually and consistently.

Here are a few suggestions for effective learning and success in this subject:

1. Read the chapter(s) before you come to the lecture. You may not see all the nuances but you will be ready to learn from the lecture. Read it so you have an idea of what we will be talking about. I cannot stress this enough. If you come to class without having read the chapter(s) you will be at a significant disadvantage.

2. Pay attention to the lecture. I will not simply be going over the chapter(s). I will cover what I think are points that are more important and/or more difficult. I will often present material that is not in the textbook. If you are not paying attention you may miss this material.

3. Read the chapter(s) again after the lecture. You should find this reading a lot easier. At this point you can focus on points that were difficult or confusing.
4. Focus your attention on the lecture and participate as much as you can in the class discussions. (It is requested that you not bring food or drink in class. Beepers and cell phones must be turned off during class meetings.)

5. Ask as many questions as you like in class; this will help both you and your classmates. When others ask questions, ask yourself: Do I know why the question is being asked? Do I know the answer? Does the answer given surprise me?

6. Understand the material. This includes understanding the lectures, the texts, and auxiliary materials.

7. Keep on the project analysis stages. It is almost impossible to catch up once you have fallen behind.

8. Whenever possible, apply what you have learned to your daily financial life.

9. Finally, I cannot stress enough that it is very critical for you to keep up on a regular basis.

Theory and Practice. The material used here can be found in the text materials, the lecture notes, the library resources, and/or the internet. It is crucial to access all available sources of information when preparing your analyses.

Self-Discipline. While it is important to do a thorough analysis, it is also important to do it on time. If you are requested to testify in court or before a legislative body on Monday at 9 AM, you cannot say I will have a more thorough analysis by Tuesday. If you are the CFO and have a meeting with analysts or stockholders on Tuesday, you cannot postpone the meeting because your analysis is not ready without having a severe impact on the firm's financial status. As a result, it is important to not only do a thorough analysis, but do it on time.
# COURSE OUTLINE AND ASSIGNED READINGS

<table>
<thead>
<tr>
<th>DATE</th>
<th>TASK</th>
<th>READINGS</th>
<th>PROJECT REQUIREMENTS</th>
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<tbody>
<tr>
<td>January 23</td>
<td>Introduction to Project</td>
<td>Text: Chapter 1</td>
<td>Begin to research company for project</td>
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<td>Choice of Company Framework</td>
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<tr>
<td>January 24</td>
<td>Strategy Analysis: Economic Analysis</td>
<td>Text: Chapter 2</td>
<td>Research Economy and Industry</td>
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<td></td>
<td>Industry Analysis</td>
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<tr>
<td>January 30-31</td>
<td>Accounting Analysis</td>
<td>Text: Chapters 3 &amp; 4</td>
<td>Obtain 10Ks, 10Qs, and DEF 14 (Proxy) statements</td>
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<tr>
<td>January 31</td>
<td><strong>Choice of Company Required by 4:00 PM, Item 1</strong></td>
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<tr>
<td>February 6 - 7</td>
<td>Financial Analysis &amp; Forecasting</td>
<td>Text: Chapters 5 &amp; 6</td>
<td>Prepare 5 year spreadsheet</td>
</tr>
<tr>
<td>February 13-14</td>
<td>Financial Analysis &amp; Forecasting (continued)</td>
<td>Text: Chapters 5 &amp; 6</td>
<td>Prepare proforma spreadsheets</td>
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<tr>
<td>February 20</td>
<td>No- Class, Presidents Day</td>
<td></td>
<td>Work on Submission 2</td>
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<tr>
<td>February 21</td>
<td>Financial Analysis &amp; Forecasting (continued)</td>
<td>Text: Chapters 5 &amp; 6</td>
<td>Work on Submission 2</td>
</tr>
<tr>
<td>February 27</td>
<td><strong>Project Submission 2: Items 2, 3, 4, and 5</strong></td>
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<tr>
<td>February 28 -</td>
<td>Equity Security Analysis</td>
<td>Text: Chapter 9 and Handout</td>
<td>Preparation of cost of equity</td>
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<td>March 6</td>
<td></td>
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<tr>
<td>March 7, 13, &amp;</td>
<td>Cost of Capital</td>
<td>Text: Chapters 10 &amp; 12</td>
<td>Preparation of debt and cost of capital</td>
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<td>14</td>
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<td>March 20</td>
<td><strong>Project Submission 3: Items 6, 7, and 8</strong></td>
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<tr>
<td>March 21</td>
<td>Valuation</td>
<td>Text: Chapters 7 &amp; 8</td>
<td>Work on Valuation</td>
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<tr>
<td>March 27 &amp; 28</td>
<td><strong>No Class, Spring Break</strong></td>
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<tr>
<td>April 3 - 4</td>
<td>Valuation</td>
<td>Text: Chapters 7 &amp; 8</td>
<td>Work on Valuation</td>
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<tr>
<td>April 10 - 11</td>
<td>Valuation (Continued)</td>
<td>Text: Chapters 7 &amp; 8</td>
<td>Work on Valuation</td>
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<tr>
<td>April 17</td>
<td><strong>Project Submission 4: Item 9</strong></td>
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<tr>
<td>DATE</td>
<td>TOPIC</td>
<td>READINGS</td>
<td>PROJECT REQUIREMENTS</td>
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<td>April 18</td>
<td>Discuss Final Report</td>
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<td>Start on Final Report</td>
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<tr>
<td>April 24 &amp; 25</td>
<td>Valuation of Private Companies</td>
<td>Handout Materials</td>
<td>Work on Final Report</td>
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<tr>
<td>May 1</td>
<td>No Class</td>
<td></td>
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<tr>
<td><strong>May 2</strong></td>
<td><em>Final Submission due by 4:00 PM</em></td>
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PROJECT

FIN 495

Professor Joseph D. Vinso
University of Montana

GBB 377
email: joe.vinso@business.umt.edu

Spring, 2006
PROJECT

In doing this project, the following discussion can give you direction. This project must be typed to be accepted. Everything must be letter quality printed.

1. Choose a public company with the following characteristics:
   a. Total annual sales must be less than $1 billion.
   b. Must have five (5) years of financial statements.
   c. No operating losses (EBIT) or regular losses (EBT) in the last five years.
   d. Must be a manufacturing or service company. Cannot be a financial institution or real estate company.

2. Prepare an economic analysis.
   a. National economy with an investigation of trends for at least the next five (5) years.
   b. If sales are predominantly in a given state or region, then a review of that economy is also needed.
   c. Describe what the implications of the economic outlook is for your industry and company.

3. Prepare an industry analysis.
   a. Describe the characteristics of the industry
      1. Characteristics of industry components
      2. Sales characteristics and growth outlook for long run (at least 5 years)
b. Geographic factors (markets, production, other)

c. Causes of changes in industry prospects
   1. Competition
   2. Technology
   3. Government (regulation, customer, other)
   4. Price changes and policies
   5. Impact of business cycle

d. Summary of industry outlook and what it means to your company

4. Prepare a company analysis so that the firm can be compared to the industry.

   a. Describe the Background and History of the company

      1. Background and History
      2. Organization of Management
      3. Products
      4. Markets and Distribution Channels
      5. Competition
      6. Production Facilities
      7. Promotional Activities
      8. International Dimension, if any
      9. Other

   b. Prepare a five year spreadsheet showing the income, balance sheet, and cash flow statements for the last five (5) years of historical data, as described in class, using the firm’s 10Ks, 10Qs, and Proxy Statements. These charts must be included in the body of the discussion.
c. Describe the trends in growth and variability of:

1. Sales
2. Expenses
3. Earnings and profit margins
4. Any unusual income statement items
5. Current asset utilization
6. Any unusual current asset item
7. Fixed and total assets including intangibles
8. Current liabilities
9. Any unusual current liability items
10. Long term debt and common stock utilization
11. Cashflows including position analysis

d. Prepare a ratio analysis comparing the firm's ratios to those of the industry for the last five years. The following ratios are a minimum requirement:

1. Liquidity ratios -- Current and Quick ratio

2. Activity ratios -- Accounts receivable turnover, average collection period, inventory turnover, days of inventory, sales/working capital, total asset turnover, fixed asset turnover.

3. Debt ratios -- Total Debt/Total Assets, total debt/net worth, Time Interest Earned

4. Profitability -- Profit BT/Total assets, gross margin, Profit BT/Sales, Profit BT/Net Worth

5. Other ratios including – Officers’ compensation/Sales, Depreciation/Sales, Z Score, Operating Cycle, and any others deemed appropriate.

f. You must graph at least one ratio in each category.
   Choose the ratios which are the most important for your company.
   These graphs must be included in the body of the discussion.
g. Prepare an overall analysis of the results of the ratio analysis and what they mean to your company.

h. Prepare a description of qualitative factors

1. Sales prospects
2. Changes in the competitive situation
3. New product (or service) prospects
4. Adequacy of raw material supplies (if appropriate)
5. Plans for expansion
6. Research and development

5. a. Prepare proforma balance sheets, income statements, and cashflow statements for the next five years after the last available financial statement using an appropriate spreadsheet program. Estimate the "additional funds needed" from external sources for each year (or indicate the amount of excess funds available) but do not identify the sources at this time. If excess funds are generated, indicate those but do not identify the disposition of those funds at this time.

b. Prepare a brief discussion of each of the financial statements prepared.

6. In order to evaluate project opportunities, it is necessary to determine the cost of capital, \( k_o \), where the cost of capital is as follows:

\[
k_o = \left[ \frac{D}{V} x k_d x (1-t) \right] + \left[ \frac{D}{E} x k_e \right]
\]

where: \( k_e = R_f + \beta (E(R_M) - R_f) \)

- \( R_f \) = Long-term risk-free rate
- \( \beta \) = Beta
- \( R_M \) = Expected Return on the Market

a. Prepare an estimate of beta regressing your firm's returns on market returns. Compare that beta to the values obtained from public sources.

b. After choosing an appropriate \( E, V, \beta, R_f \) and \( E(R_M) \), determine the value of \( k_e \).
c. Then choose values for D, V, k_d, t

d. Calculate k_o using the values derived.

7. Prepare a final set of proforma statements (income, balance sheets, cashflow). Show on these statements the impact of the financing decision. That is, include on these statements the financing decision needed to take care of additional funds needed or excess funds and finalize decisions on dividends.

8. Prepare a ratio analysis similar to 4e comparing the proforma results with the most current year ratios.

9. Estimate the indicated value using the Capitalization of Income, Discounted Cashflow, and Market Comparable methods of valuation. Compare the value obtained to the current price of the stock and indicate whether the stock appears to be under-, over-, or fairly priced and why you think so.