Course Overview and Objectives

This course explores the use of information for internal analysis and decision-making. The main objective of the course is to equip you with the knowledge to understand, evaluate, and act upon the many financial and non-financial reports used in managing modern firms.

Managing any modern firm requires information about the firm’s products, processes, assets, and customers. This information is a key input into a wide range of decisions: analyzing profitability of various products, managing product-line portfolios, setting prices, measuring and managing profitability of customers, making operational and strategic decisions, evaluating investments, guiding improvement efforts, and so on.

The focus of this elective is on modern internal-reporting systems. We will discover that many firms have not provided their managers with useful information, causing value destruction and bankruptcies. We will also investigate some modern ideas in how an organization’s internal information system should be designed to enhance value creation; and we will also see how world-class firms take advantage of their competitors’ internal-reporting mistakes.

To attain the right level of understanding, we will briefly explore the mechanics of the many techniques used to prepare management reports. But the emphasis in this course is very much on interpretation, evaluation, and decision-making.
Teaching Materials

There is no required textbook for this course. There are numerous readings and cases in the course packet. I will provide extensive lecture notes.

Feedback

I encourage you to provide feedback on class topics, content, and cases. I appreciate any concerns, questions, or opinions regarding the course. I would like to continue to improve this course; participants’ feedback is critical.

Class Meetings

In each class, we focus on the management aspects of the topic. To prepare for class, you should go through the readings and prepare the case questions.

Case discussion will take up more than half of the course. I have found that a mix of lectures, cases, and discussions provides an interactive learning environment allowing for greater understanding of the managerial implications of information-system design and use.

Students will be active participants in case discussions, providing summaries of issues, analyses, and recommendations. This involves the preparation of the case and reading assignments before class and the active sharing of your insights during class.

Note that many of the managerial problems I will address through cases will not have clear-cut or “correct” solutions; do not let this discourage you.

Each student should carefully prepare the assigned case and be ready to be called on to present their analysis or to comment on others' analyses. You are encouraged to prepare for cases in teams. I will randomly call on students when discussing cases.
Grading

The course grade will be based on class participation and a project write-up:

- Class participation 40%;
- Project write-up 60%.

Class participation. The grade for class participation will depend on the quality of your interaction and participation in class discussions. The following factors will be considered:

- Case preparation. You should prepare answers to the case questions. I encourage you to prepare for cases in groups. I will randomly call on students to contribute to case discussion.
- Contributing to the in-class case analysis by making comments to move the discussion toward an understanding of the company and its issues.

Project write-up. There are two options for the project write-up. You can either analyze a relevant issue at a real company of your choice. Or, alternatively, you can provide an analysis of a case that I will provide. The project write-up is due one week after the last class meeting.

Academic Integrity

Integrity is critical to the learning process and to all that we do here at NYU Stern. All students are expected to abide by the NYU Stern Student Code of Conduct. A student’s responsibilities include, but are not limited to:

- A duty to acknowledge the work and efforts of others when submitting work as one’s own. Ideas, data, direct quotations, paraphrasing, creative expression, or any other incorporation of the work of others must be clearly referenced.
- A duty to exercise the utmost integrity when preparing for and completing examinations, including an obligation to report any observed violations.

For more information, please see:
http://www.stern.nyu.edu/UC/CurrentStudents/Academics/PoliciesAndProcedures/index.htm

Students with Disabilities

Students whose class performance may be affected due to a disability should notify the professor early in the semester so that arrangements can be made, in consultation with the Henry and Lucy Moses Center for Students with Disabilities, to accommodate their needs.

Please see www.nyu.edu/csd for more information.
## Course Calendar At-A-Glance

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<td>Introduction to the course. Managerial information systems: theory and practice.</td>
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<td>Measuring and managing the costs of capacity. Standard techniques and value destruction.</td>
<td>Surface Mount Technologies</td>
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<td>Feb-24</td>
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<td>Enhanced reports and value creation. Activity-based costing.</td>
<td>Coffee Services Company</td>
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<td>Estimating and managing customer profitability.</td>
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<td>March-10</td>
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<td>Using management reports to make value-maximizing decisions.</td>
<td>Ace Moped Company</td>
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<td>March-24</td>
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<td>Decision analysis: strategic considerations.</td>
<td>Baldwin Bicycle</td>
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# Course Outline

**Part I. Estimating and managing costs and revenues.**

### Session 1. Introduction to the course.

**Managerial information systems: theory and practice.**

**Thursday, February 10**

### Topics

- Course objectives – yours and mine.
- What is management accounting and why do we need it?
- Management accounting, strategy, and value.
- Multiple objectives of managerial-information systems.
- The flow of costs in service and manufacturing companies.
- Direct and absorption costing; normal costing.

### Session Plan

Unlike financial accounting, managerial accounting is not subject to governmental or legal requirements. Firms design their information systems to suit very specific purposes. Consequently, there are as many information systems as there are firms.

Complexity of the modern firm requires managers to rely on aggregated reports, both to make decisions and to manage costs. You must understand how these reports are prepared in order to use them. This requires you to comprehend how information is aggregated and presented. This is the main topic of the session.

We will also discuss the “big picture” of the course, course objectives (both yours and mine), and key dates in the course.
Session 2.  
**Measuring and managing the costs of capacity.**  
*Standard techniques and value destruction. SMT case.*  
*Thursday, February 17*

### Topics
- Costs of capacity resources.
- Allocating capacity costs using practical and budgeted capacity utilization.
- The “death spiral” – dangerous reporting-system-induced phenomenon in cyclical industries.

### Prepare
Case study *Surface Mount Technology*. Address the following questions:

1. OH rates for Sunnyvale Line 6 were $360 in 1998 and $375 in 1999. How are these OH rates computed by SMT?
2. Compute the OH rates for Sunnyvale Line 6 for 1997, 2000, and 2001. Why are the rates fluctuating so much? What are the fundamental economic changes causing these fluctuations?
3. Using SMT’s bidding algorithm, prepare a bid analysis for the Motorola request if the bid is analyzed (i) in 2000; (ii) in 2001.
   Do you expect these bids to succeed?
4. What is likely to happen to OH rates (and, thus, our bids) in 2002?
5. Take a look at Project HP-HDC-32 *(this is new information, not in the case)*. This long-term contract with a major customer involves the assembly of 10,000 control boards per year on one of the state-of-the-art surface-mount assembly lines (like Sunnyvale Line 6).

   The contract requires the customer to pay us $107 per board. The direct-material content is $1.32; the direct-labor content is $0.31. The processing requirements are 0.2 hours per board.

   Compute the unit and total profitability of this relationship in 1999 and in 2001 (labor, materials, and processing requirements remain the same).

   Comment.

### Session Plan
We will spend the majority of the sessions discussing the SMT case and some modern enhancements to SMT’s reporting system.
Topics

- Enhanced reports and value creation.
- Activity-based costing.
- Differences from and advantages over “traditional” costing systems.
- Hierarchy of activities.
- Translating activity-based costing into improved profitability.
- Implementation of modern cost-management systems.

Prepare

Coffee Services Company case. This is pretty light reading. Get to know the facts and think through the two questions in the case.

Session Plan

We will begin our discussion of activity-based costing (ABC) and activity-based management (ABM). These information-system tools have become generally accepted as the solutions to many of the problems of “traditional” costing systems.

However, there is no general agreement about how ABC and ABM should be implemented for a given firm. Even more problematically, there is no general agreement about what an economic model of the firm must include to qualify for the title activity-based.

We will investigate exactly how ABC and ABM differ from the “traditional” systems. We will also look at what the activity-based models have to offer firms. Along the way, we’ll focus on several disadvantages of the “modern” systems.

We will do much of this in the context of the Coffee Services Company case.
### Session 4. Estimating and managing customer profitability.
The Infinity Bank (A) case.  
Thursday, March 3

**Topics**
- Actions to manage profitability of products and customers.
- Translating reporting innovations into shareholder value.
- Using management reports to make business decisions.

**Read**
I will post several readings on Blackboard.

**Prepare**
Case study Infinity Bank (A). Address the following questions:

1. Summarize Infinity Bank’s competitive environment. What are the major issues facing the bank? How has the bank performed in 1998-2003?
2. What were the conclusions of the product-profitability project?
3. What are the potential advantages of the “supermarket” strategy? What are the potential disadvantages of the strategy?
4. What are the objectives of customer-profitability analysis (at Infinity and in general)? What does it add to the product-profitability system? Is it important?
5. What were the conclusions of Philippa Smith’s customer-profitability pilot study? What were the major sources of variation in customer profitability?
6. Examine the customer-profitability database. Construct a graph to communicate the profitability of the 2,205 customers in the Weighted Sample sheet, ranked from best to worst.
7. Given the customer-profitability analysis, does the “supermarket” strategy make sense?
8. How should the customer-profitability information be used? What should we do about the large number of unprofitable customers?
9. Overall, what are your recommendations for Infinity Bank’s managers?

**NOTE:** See the course web page for Excel spreadsheet with case data.

**Session Plan**
We will spend the majority of our time discussing customer-profitability analysis and the Infinity Bank case. To wrap up the first part of the course, we will discuss successes and failures of firms that have implemented modern reporting systems.
### Part II. Tactical and Strategic Decisions.

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<th>Session 5. Using management reports to make value-maximizing decisions. Ace Moped Company case.</th>
<th>Thursday, March 10</th>
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#### Topics
- Relevant costs and relevant revenues.
- Opportunity costs.
- Asset-related costs.
- Routine and non-routine business decisions.
- Illustration of relevant-cost and relevant-revenue analysis in a rich setting.
- Constraints and opportunity costs.
- Dealing with more than two alternatives.
- Strategic considerations.

#### Prepare
Case study *Ace Moped Company* (the questions are in the case study).

#### Session Plan
I will begin this meeting with a concise lecture on relevant-cost and relevant-revenue analysis. We will do a number of examples, focusing on the following question: how do we use various management reports to extract data and analyze implications of decisions?

We will then take a careful look at the *Ace Moped Company* case.
**Session 6. Decision analysis: strategic considerations.**  
_Baldwin Bicycle case._  
*Thursday, March 24*

### Topics
- Relevant-cost and relevant-revenue analysis in a rich setting.
- Implications of changes in inventory and receivables.
- Analysis of erosion and cannibalization issues.

### Prepare
Case study _Baldwin Bicycle Company_. Use the following _additional information_:  
- The 75 percent capacity utilization figure after Exhibit 1 refers to _machine capacity_. Baldwin’s direct-labor cost is variable.
- The _after-tax opportunity cost of capital_ for Baldwin is 13%.
- Baldwin pays its _trade and labor payables on average 30 days_ after it incurs the relevant expenses.
- The relevant tax rate is 50% (this is Baldwin’s _marginal_ tax rate).

Also, for _variable overhead per bike_, use the following simple estimate:

\[
\$24.50 \text{ total OH per bike } \times 40\% \text{ variable } = \$9.80 \text{ variable OH per bike.}
\]

Address the following questions:

1. Ignoring for a moment the impact of the Hi-Valu deal on Baldwin’s balance sheet, compute: (i) the relevant _pre-tax_ cost of building a Challenger bike and (ii) the _pre-tax_ contribution margin. _Note_: do not include any of the net-asset-related costs (inventories, payables, receivables) in this computation.

2. What is the impact of the Hi-Valu deal on Baldwin’s balance sheet? How should we incorporate this in our analysis? _Note_: do this analysis _pre-tax_.

3. How should we treat the “erosion” issue (the bike sales lost through the regular distribution channel)? _Note_ that Baldwin management estimates that the erosion in sales, if it occurs, will not have significant effects on its assets (inventories, receivables) or liabilities.


5. Estimate the one-year financial impact of the Challenger deal on Baldwin _including taxes_.

6. Is the Challenger deal a good strategic fit for Baldwin? Should we do it?

### Session Plan
We will spend the majority of class time on the _Baldwin_ case.