Course overview and objectives

This course explores the use of information for internal planning, 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 course is on modern internal-reporting systems. We will discover that many firms do not provide their managers with useful information; we will see numerous examples of value destruction and bankruptcies caused by this. 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 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 internal reports. But the emphasis in this course is very much on interpretation, evaluation, and decision-making.
We will examine the following key topics:

- Designing managerial information systems to support an organization’s strategy.
- Determining which financial and non-financial metrics are necessary for success in various competitive environments.
- Evaluating profitability of products, services, assets, and customers.
- The capabilities and the limitations of various reporting systems in guiding value-maximization, cost-control, and improvement efforts.
- The limitations of traditional cost-estimation systems.
- Activity-based costing and activity-based management.
- Estimating and managing the costs of capacity resources.
- Relevant costs and relevant revenues in business decisions.
- The information necessary to evaluate long-term business decisions.
- Decentralization and performance evaluation.
- The incentives created by various performance-evaluation techniques.
- Transfer pricing.

**Teaching materials:** The optional textbook is *Managerial Accounting*, by Garrison, Noreen, and Brewer, 15th edition, 2014. You can also use the 14th edition of this text (I will provide a syllabus using the 14th edition on request).

Roughly half the course sessions will rely on pre-readings from this text. Also, for most course topics, I will suggest several problems from the text for self-study and self-evaluation.

There is one copyrighted case we will use.

Additional readings and cases are posted on Canvas. I will also provide extensive lecture notes (and post them on Canvas).

**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 approximately half of the course. I have found that a mix of lectures, cases, and discussions provides an ideal interactive learning environment.

Students will be active participants in case discussions, providing summaries of issues, analyses, and recommendations. This requires you to prepare the case and reading assignments before class and to share your insights during class.

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

Grading: The course grade will be based on class participation, an individual assignment, and a final exam:

- Class participation: 10%
- Two case write-ups: 30%
- Final exam: 60%

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

Case write-ups: There are two case write-ups. Both of the case write-ups will be graded based primarily on your effort in answering the case questions.

The write-up of the SCM case is due on Thursday June 4, by 11:00am. (Note that this is the case we cover in class that day.) This is a type B assignment: you may discuss it with other course participants; you must prepare the case write-up individually; and you will receive an individual grade on the write-up.

The write-up of the Falco Scooters (A) case is due on Tuesday June 16, by 11:00am. (Note that this is the case we cover in class that day.) This is a type B assignment: you may discuss it with other course participants; you must prepare the case write-up individually; and you will receive an individual grade on the write-up.

Note that when preparing the write-ups, you are not allowed to use lecture or case notes from previous sections of this or other courses.

Please upload your case write-ups to Canvas.

Final exam: The final exam will be in-class (on Thursday June 25), closed-book. You may use a single page of notes (standard letter-sized paper, with notes on front and back). The exam is a type C assignment: it must be done individually without any discussion with anyone else.

The final exam will only cover topics, concepts, ideas, and examples that we specifically cover in class. To help you prepare, I will provide a number of optional problems and solutions for self-study and self-evaluation during the course. These will include: (i) lower-level number-crunching problems from the textbook (these are in the course syllabus), and (ii) sample final exams (these will be posted on Canvas).
**Honor code:** Students are expected to adhere to Columbia Business School’s Code of Ethical and Professional Conduct and Integrity Code (the Code). In addition, *students are not allowed to use lecture or case notes from previous sections of the course.* Failure to comply with the code may affect your grade in the course and/or your standing in the Columbia Business School community.

**Computer use during class:** The use of laptops, cell phones, tablets, and any other wireless devices during class is prohibited, unless required for the course.
## Course Calendar At-A-Glance

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Case to prepare</th>
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<tbody>
<tr>
<td>1 Tuesday 5/26/2015</td>
<td>Introduction to the course</td>
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<td>Managerial information systems: theory and practice</td>
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<td>2 Thursday 5/28/2015</td>
<td>Measuring and managing the costs of capacity</td>
<td>Adapconn</td>
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<td>Standard techniques and value destruction</td>
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<td>3 Tuesday 6/2/2015</td>
<td>Enhanced reports and value creation</td>
<td>Coffee Services</td>
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<td>Activity-based costing (introduction)</td>
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<td>4 Thursday 6/4/2015</td>
<td>Activity-based costing (conclusion)</td>
<td>SCM (turn in your case write-up)</td>
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<td>5 Tuesday 6/9/2015</td>
<td>Estimating and managing customer profitability</td>
<td>Infinity Bank</td>
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<td>6 Thursday 6/11/2015</td>
<td>Wrap-up of <em>Infinity Bank</em> and customer-profitability analysis</td>
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<td>Business decisions: cost-volume-profit (CVP) analysis</td>
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<tr>
<td>7 Tuesday 6/16/2015</td>
<td>Business decisions: Relevant costs and relevant revenues</td>
<td>Falco Scooters A (turn in your case write-up)</td>
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<td>8 Thursday 6/18/2015</td>
<td>Business decisions: Asset-related costs and strategic issues</td>
<td>Falco Scooters B</td>
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<td>Decentralization, performance evaluation, transfer pricing</td>
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<td>9 Tuesday 6/23/2015</td>
<td>Transfer pricing and decision analysis</td>
<td>LTC</td>
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<td>Course takeaways</td>
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<td>10 Thursday 6/25/2015</td>
<td>Final exam</td>
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# Course Outline

**Session 1. Introduction to the course.**  
*Managerial information systems: theory and practice.*  
*Tuesday, May 26*

## Topics
- Course objectives – yours and mine.
- What information do managers need?
- Reporting, strategy, and value.
- Multiple objectives of internal-reporting systems.
- The flow of costs in service and manufacturing companies.
- Direct and absorption costing; normal costing.

## Textbook
- Chapter 2, pages 28-38, 44-47. Make sure you understand the terminology introduced in this chapter. You have seen many of these terms before; we will use many of them throughout the course.

- Chapter 3, pages 84-93 and the *Multiple Predetermined Overhead Rates* paragraph on page 107 (you don’t need to – and should not – look at other material on pages 93-107).

## Self-study Problems
- 3-1; 3-3; 3-15.

## Session Plan
- 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. Adapconn case.*

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<th>Thursday, May 28</th>
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#### 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 *Adapconn*. Address the questions in the case.

#### Session Plan

We will spend the majority of the sessions discussing the *Adapconn* case and some suggested enhancements to *Adapconn*’s reporting system.
Session 3.  Enhanced reports and value creation.  Activity-based costing. Coffee Services Company case.  Tuesday, June 2

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.

Textbook
Chapter 7, pages 287-310.  Don’t get overwhelmed by the details; we’ll clarify the main ideas in the class session.

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

Self-study Problems
7-4; 7-5; and the review problem on pages 312-314.

Session Plan
We will first finish our discussion of the Adapconn case from Session 2.

We will then 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 most of this in the context of the Coffee Services Company case.
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<th>Topics</th>
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<tr>
<td>Activity-based costing in manufacturing.</td>
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<td>Combining activity-based costing with practical capacity.</td>
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<td>From activity-based costing to customer-profitability analysis.</td>
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**SCM case**

**Session Plan**

We will complete our discussion of activity-based costing (ABC) and discuss the transition from ABC to customer-profitability analysis.

**Prepare and turn in**

SCM case. See the questions in the case.
Session 5. Estimating and managing customer profitability. The Infinity Bank (A) case.

Tuesday, June 9

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 Canvas.

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? What were the surprises?
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? How should Philippa Smith’s customer-profitability pilot study be improved/extended?
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 site 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.
### Session 6.  
**Wrap-up of Infinity Bank (A) case.**  
*Business decisions: cost-volume-profit (CVP) analysis.*  
*Thursday, June 11*

<table>
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| ▪ Cost-volume-profit analysis.  
| ▪ The profit equation.  
| ▪ Contribution margin ratio (CMR) analysis.  
| ▪ Cost structure and operating leverage.  

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| You have seen cost-volume-profit (CVP) analysis in other courses. Chapter 5 (pages 189-208) provides a good summary of this analysis tool; read this if you need a review of CVP.  

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<th>Self-study Problems</th>
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| 5-4; 5-14; 5-23.  

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<th>Session Plan</th>
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| We will first finish our discussion of customer-profitability analysis and the *Infinity Bank* case from session 5.  
|  
| We will then review the decision-analysis tool frequently used (and misused) in practice – cost-volume-profit analysis.  
|
### Session 7. Business decisions: relevant costs and relevant revenues.  
*Falco Scooters (A) case.*  
*Tuesday, June 16*

#### Topics
- Relevant costs and relevant revenues.
- Opportunity costs.
- Routine and non-routine business decisions.
- Dealing with multiple alternatives.

#### Textbook
Chapter 12 (pages 532-546) provides a nice background for our analysis of business decisions.

#### Prepare and turn in
Case study *Falco Scooters (A).* Address the questions in the case.

#### Self-study Problems
12-3; 12-4; 12-23.

#### Session Plan
We will take a look at using reports to analyze decisions. 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 look at the *Falco Scooters (A)* case.
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<th><strong>Session 8.</strong> Business decisions: asset-related costs and strategic issues. Decentralization, performance evaluation, transfer pricing. <em>Falco Scooters (B) case.</em></th>
<th>Thursday, June 18</th>
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**Topics**
- Implications of changes in inventories, receivables, and payables.
- Erosion and cannibalization issues.
- Strategic issues.
- Performance evaluation and transfer pricing: introduction.

**Textbook**
Chapter 11, pages 483-486 on *residual income* and *EVA®*. This is useful for doing the *Falco Scooters (B)* case.

**Prepare**
Case study *Falco Scooters (B)* case. Address the questions in the case. You will need to use ideas from corporate finance and managerial economics to address the case.

**Session Plan**
We will analyze the *Falco Scooters (B)* case. I will then provide a brief introduction to the complex field of transfer pricing.
| Topics | Transfer pricing – key method in evaluating the performance of managers in integrated organizations.  
|        | Various methods of pricing intrafirm transactions.  
|        | Aligning incentives of divisional managers and the firm’s owners.  
|        | Using transfer prices to guide decisions.  
|        | Strategic considerations.  
|        | Capacity and “correct” cost-based transfer prices.  
|        |  
| Textbook | Chapter 11 Appendix 11A, pages 512-518. Please look over this for background on transfer pricing. The focus of the reading is largely on negotiated transfer pricing; our class focus will be on cost-based transfer pricing.  
|        |  
| Prepare | Case study *LTC Transfer Pricing and Divisional Performance Evaluation*. Address the questions in the case.  
|        |  
| Self-study Problems | Practice Final-Exam Questions 3 and 6.  
|        |  
| Session Plan | We will continue our discussion of transfer pricing, focusing on the *LTC* case. We will discuss any unfinished topics and examples, review the key takeaways, and wrap up the course.  
|        |  