UMSL Business

Accounting

Graduate Topics in Controllership
ACCTNG 5412 – Spring 2021

INSTRUCTOR   Dr. James Hesford

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OFFICE HOURS   Monday & Tuesday 1:00 – 2:00 p.m.; Friday 2:00 – 3:00 p.m.
                         Other hours by appointment.

REQUIRED TEXTBOOK   Charnes, J. (2012). *Financial Modeling with Crystal Ball and Excel*.
                         2nd Edition. Online: 978-1-119-20321-6. E-book: 978-1-118-
                         24005-2. Paperback: 978-1-118-17544-6. (Cost: About $65 from
                         Amazon, VitalSource or other outlets.)

OTHER REQUIRED   *Oracle Crystal Ball* (one year free with the textbook)
                         Tableau or *Power BI* (free limited-time version for student use)
                         R and *RStudio* (free, open-source versions)
                         Personal Computer

PREREQUISITES   Managerial accounting; cost accounting.

COURSE DESCRIPTION
Background. In most large organizations, the chief financial officer has two direct reports: the *controller* and the treasurer. The treasurer is responsible for raising and managing capital, whereas the controller is responsible for financial reporting and management control, including internal controls. This course will cover topics that relate to controllership, the actions and responsibilities of controllers. A good controller is a key member of the senior management team, providing (and often interpreting) financial information for decision-making, and manages (and possibly implemented) the management control system. The work of controllers involves record-keeping, publishing financial reports (internal and external), preparing budgets (operating budgets and capital budgets), analyzing results, and designing the compensation system.

Content. In the decision support role, controllers use historical information to estimate relationships between activities and costs, then use models to predict outcomes and make decisions. In the control role, controllers are engaged in planning, setting compensation, analyzing results and preparing reports for others in the firm. While controllers also prepare financial reports for external users, we will not consider this aspect of controllership (this topic is typically covered in financial accounting courses).

Focus and Approach. Having had years of experience in multiple industries (broadcasting, consumer electronics and semiconductors) and multiple functional areas (operations, engineering,

marketing and accounting) before obtaining my Ph.D., I try to link the course material to the "real world." Ten of the eleven cases in this course use real data and the course schedule (on the last page) provides a question that was faced by senior executives at the firm. For example, in week 6 we will discuss the case, *Great Lakes Lodging*. The firm, Great Lakes had a network of hotels and management sought to become more "asset light," following a strategy some firms in the industry (e.g., Marriott) had successfully pioneered. Management determined that they should sell off a number of hotels. The question facing senior management was "Which hotels should be sold off?" You'll need to analyze performance over time to identify which hotels are the best candidates. A full analysis would incorporate cash inflows from hotel sales, possible cash flows from franchise sales, and calculation of current and future (anticipated) financial returns. As you'll see in the course schedule, each of the ten questions are very important to senior management. A controller needs to know how to gather information, analyze the data, and prepare a report for the senior management team.

SOME COURSE SPECIFICS

Videos and Zoom. For some topics, lecture content on theory, concepts and illustrations will be made available. We're going to discuss cases live on Zoom. I purchased a Zoom subscription and we'll use my Zoom rather than going through Canvas or the UM license.

Cases and Tools. You will work on eleven teaching cases in this course. While each case is on a different *topic* (e.g., cost estimation, operational budgeting and transfer pricing), I have grouped them into three advanced tools and one traditional set of tools: (1) Regression analysis; (2) Data Visualization; and, (3) Monte Carlo Analysis.

Cases. With the cases, you will analyze real-world accounting data and prepare reports responding to the managerial accounting issue presented in the case. You will work in a group and the grade earned will be a function of the project grade and a peer evaluation score obtained by averaging the scores from the other group members. In order to receive a group grade, you must complete the peer evaluation form for your group members; if you fail to complete the peer assessment, your peer evaluation score will be zero (0). Cases will be available on Canvas.

Tools. Businesses are more sophisticated today than a generation ago. Employers appreciate, perhaps even expect, new hires to be able to use modern tools. These include **R**, *Python*, *Tableau*, *Power BI* and the like. A generation ago, employers were seeking competency in Excel. And while Excel is still required, you will benefit greatly (in pay and promotion opportunities) if you have mastered these modern tools. We won't program in Python, but we will use R for statistical analysis, Tableau, Power BI or **R** for data visualization, and *Crystal Ball* for Monte Carlo simulation. Other than *Crystal Ball*, the choice between tools depends on your preference and operating system.

BROAD LEARNING OBJECTIVES

1. Increase your business acumen, helping you understand management processes used in running a business, the various decisions faced by managers and the information needed to support business processes and decision-making.

2. Renew and extend your knowledge of managerial accounting topics, specifically with: (1) cost estimation; (2) CVP analysis; (3) operational budgeting; (4) variance analysis; (5) performance measurement; (6) capital budgeting; (7) differential cost analysis; (8) internal control; (9) transfer pricing; and, (10) activity-based costing.

3. Reinforce Excel spreadsheet modeling skills.

4. Introduce basic skills for modern tools (*R* or *Python*, *Tableau* or *Power BI*, *Crystal Ball*).

5. Provide students with a basic appreciation for the importance of critical thinking and the opportunity to begin developing this skill.

METHODS OF ASSESSMENT

Points will be assigned for the ten case studies turned in. Each one is worth 8% of your course grade. Class participation will count towards the remaining 20% of your course grade. Regular class participation is required. I may randomly call on individuals to discuss a case or to present solutions to an assigned problem. Be prepared to justify your answer with sound reasoning and computed solutions. Participation stimulates active learning and helps improve your understanding of the material. Good participation grades are assigned to individuals who:

- Are always well prepared;
- Ask insightful, penetrating questions;
- Push the discussion of the case to a higher, more sophisticated, level; and,
- Help others understand, *in a constructive manner*, that some arguments are flawed.

Poor participation grades are assigned to individuals who:

- Rarely talk;
- Skip classes;
- Make irrelevant or shallow comments; and,
- Are unprepared when called upon.

Lastly, you will earn points for contributing to case discussions and posting comments on our class Slack channel.

LATE SUBMISSIONS

Cases will be turned in at the beginning of each week's class. Late submissions will be reduced by one full letter grade for each day it is late (e.g., an A- becomes a B- if turned in one day late, a C- if turned in two days late, and so on).

GRADING SCHEME

Based on your overall scores, letter grades will be assigned as shown in the table below:

Score (%)	Letter Grade	Score (%)	Letter Grade	Score (%)	Letter Grade
97-100	A+	93-97	A	90-93	A-
87-90	B+	83-87	B	80-83	B-
77-80	C+	73-77	C	70-73	C-
67-70	D+	63-67	D	60-63	D-
0-60	F				

STUDENT CONDUCT

Special care should be taken to understand the university's position on misconduct (i.e., plagiarism, cheating and such). It is the responsibility of the student to read, familiarize, and comply with UMSL policies. Students are expected to respect basic standards of intellectual

integrity, including, but not limited to, refraining from plagiarism, cheating or duplicating someone else's work. In addition, students are expected to take an active role in encouraging other members of the academic community to refrain from academic dishonesty and are asked to advise the instructor if they are aware of any such violations. This provision applies to work submitted as a group project.

CLASS SCHEDULE

Statistical Description and Analysis of Data

Week 1 (1/18)	**Question: What is Controllership?**
	Case: *Don Russell: Experiences of a Controller/CFO.*
	Data Management

Week 2 (1/25)	Descriptive Statistics

Week 3 (2/1)	Regression Analysis

Week 4 (2/8)	**Question: What is my business unit's cost function?**
	Cost Estimation. Case: *Red River.*

Data Visualization

Week 5 (2/15)	**Question: Can we develop and implement a balanced scorecard for performance measurement?**
	Balanced Scorecard. Case: *Pueblo Hospitality.*

Week 6 (2/22)	**Question: With the decision to implement an asset light strategy, which assets should be divested?**
	Franchising. Case: *Great Lakes Lodging.*

Week 7 (3/1)	**Question: Are some of our managers stealing from the firm?**
	Internal Audit. Case: *Atlas Hotels.*

Monte Carlo Analysis

Week 8 (3/8)	Monte Carlo Simulation.

Week 9 (3/15)	**Question: With limited funds for capital improvement, which assets should be renovated**
	Capital Budgeting. Case: *Azure (A).*

Week 10 (3/22)	**Question: Did we make the right renovation decision?**
	Case: *Azure (B).*

Week 11 (4/5)	**Question: What is our firm's likely breakeven given the uncertainty in our product sales mix?**
	CVP Analysis. Case: *Northstar Hospitality Trust.*

Management Control Systems

Week 12 (4/12)	**Question: What is next year going to look like? What is my plan for next year?**
	Budgeting. Case: *Sunshine Hotel.*

Week 13 (4/19)	**Question: How well did the firm do this year?**
	Variance Analysis. Case: *Lone Star Lodging.*

Week 14 (4/26)	**Question: How can we assess the contribution of profit center managers in a multi-divisional firm?**
	Transfer Pricing. Case: *Kokopelli Resort.*

Week 15 (5/3)	Time-driven Activity-based Costing