Course Objective:
This course describes a variety of activities that affect profitability on a construction project and within a construction company. Students learn in an interactive setting about issues that directly contribute to business strategy and company profits. The construction business includes many inherent risks, which are discussed in detail. Case studies are used to identify potential risks and to apply methods to mitigate those risks.

Week-by-week description of the course:

Week 1  Profits
Topics include components of profitability for a construction firm – fee, overhead, self-performed work, equipment and others. Both job profits and company profits are discussed. Contract terms are discussed for their impact on achieving profitability. A case study highlighting profitability risks is used.

Week 2  Marketing, Sales and Customer Relations
Students learn the difference between marketing and sales. Several types of marketing materials are reviewed. The art of listening is discussed relative to customer relations. Students are challenged to develop an idea for a new company and how they would market it via a case study.

Week 3  Conceptual Estimating, Competitive Bidding and Purchasing
Students learn the difference between various levels of estimates during the design process. Conceptual estimates, design development estimates, detailed estimates are discussed, especially with regard to risk. Purchasing strategies are reviewed to illustrate how they can affect profitability and control of risk at the job level.

Week 4  Self-Performed Work
Construction firms often perform some trade work with their own forces, rather than subcontracting the work. Evaluating the risks of self-performed work is discussed. Pricing strategies for self-performed work are reviewed and labor productivity is discussed. Monitoring job performance for compliance with self-performed work estimates is also discussed.

Week 5  Equipment
Distinction is made between large equipment, small tools and consumables on a project. Equipment rental costs for large equipment are discussed and rent/buy strategies are reviewed. Risks are discussed regarding owning equipment, forming a separate equipment company or renting equipment.
Week 6  Risk Management, Insurance, Bonding, Safety
Issues such as bonding capacity (both single job and aggregate), experience modifier ratio, general liability insurance, and overall risk management are discussed.

Week 7  Project Management/Leadership
Expected competencies of project managers are reviewed, as well as roles and responsibilities on a project. The significant role of leadership on a project (and in a company) is discussed. Attributes of leadership are discussed in relation to the project manager’s role in the construction process.

Week 8  Field Operations
Expected competencies of field supervision personnel are reviewed as well as their roles and responsibilities on a project. Logistics planning to include hoisting concepts are discussed. Controlling risk by planning a job for success is a key point of this class.

Week 9  Job Costs versus SG&A Costs
This class makes the distinction between job chargeable costs versus home office overhead costs. Contract provisions are reviewed to help students learn how they affect profitability. Various contract types and ability to charge costs are discussed.

Week 10 Costs to Complete
Job profitability is often measured at “Cost to Complete” meetings with company management. Students learn how to develop costs of a project at completion and the importance of being able to predict accurate costs at the end of a project. Risk management from the job level to the company level is reviewed in a case study.

Grade Determination:
Final Exam ............... 20%
Homework............... 40%
Class Participation .... 40%

Instructors:
Daniel Maguire and Richard Tilghman

Text:
No text required

Software:
Excel spreadsheets