



Syllabus for TECH 922: Managing Portfolios and Projects

Kellogg School of Management, Northwestern University

Last update: February 5, 2007

Professor

Mark Jeffery

Email: mjeffery@kellogg.northwestern.edu

Office Phone: (847) 467-5509

Home Phone: (847) 328-3239

Office: 5248 Jacobs Center (5'th floor of new building, turn right out of the elevator)

Course Info Web Site

All electronic cases.

Office Hours

If you have any questions about the material please come and see me. I am very happy to talk with you. My office hours are by appointment. Please talk to me after class, phone, or email me to schedule a meeting.

Course Description:

Synchronizing enterprise technology, innovation, marketing, and growth investments with corporate strategy is a major challenge for many firms. This course teaches the essential executive skills of portfolio and project management and is designed for prospective consultants, technology, marketing, product, finance, and general managers. The course incorporates real life case studies that span the product life cycle, and students work together in teams to develop case solutions. Specific cases include return on investment (ROI) analysis of customer relationship management (CRM) systems, real options applied to CRM for strategic and tactical decision making, earned value program oversight, risk management, innovation management, growth portfolio management, and strategic portfolio optimization for mergers and acquisitions. Four of the cases include hands-on learning with software tools: Students use @Risk for Monte Carlo simulations of project ROI and real options calculations, and use Microsoft Project for a hands-on case assignment to turnaround a project in trouble. Students also use ProSight Portfolio software for a simulation of a complex strategic IT portfolio management decision following the merger of two financial institutions. Senior executive speakers complement the case discussions. Prerequisites: FIN-430, or permission of the instructor. While not required, TECH-914 is a recommended prerequisite for students who do not have a technology background.



Course Outline

Week 1	<p><u>Introduction</u> Why project portfolio management? Portfolios, programs and projects defined The product lifecycle: the class is built around this cycle</p> <p><u>Return on Investment (ROI)</u> Review of return on investment (ROI) analysis for executives <i>Case: B&K Distributors – ROI for a Web Based Customer Portal (not a hand in assignment)</i></p>
Week 2	<p>Team Case Assignment: <i>ROI for a Customer Relationship Management Initiative at GST</i> Marketing ROI and the importance of non-financial metrics <i>Case: Sony-FIFA Partnership Marketing Program: The Value of Sponsorship (not a hand in assignment)</i></p>
Week 3	<p><u>Real Options</u> Introduction to Real Options for Projects Real options workshop</p>
Week 4	<p>Team Case Assignment: <i>The Value of Flexibility at Global Airlines - Real Options for EDW and CRM</i> <u>Project and Program Management</u> Earned Value Project Management Essentials</p>
Week 5	<p>Team Case Assignment: <i>Ariba Implementation at Med-X - Managing Earned Value</i> MS Project Workshop: Tools for Project Management</p>
Week 6	<p>Risk Management Team Case Assignment: <i>A&D High Tech Case A - Managing Projects For Success</i> Mythical Man-Month</p>
Week 7	<p>Team Case Assignment: <i>A&D High Tech Case B - Managing Scope Change</i> <u>Innovation Management</u> The innovation radar</p>
Week 8	<p>Team Case Assignment: <i>DuPont Tyvek - Managing Disruptive Innovation</i> <u>Portfolio Management</u> Strategic alignment of investments and business objectives ProSight Portfolios Workshop: Tools for Portfolio Management</p>
Week 9	<p>Team Case Assignment: <i>ProSight - New Millennium Financial Technology Portfolio Management</i> Marketing and Growth Portfolio Management</p>
Week 10	<p>Team Case Assignment: <i>Danaka Corporation, Inc. - Growth Portfolio Management</i> Course wrap up</p> <p>Final Exam Case Assignment</p>



TECH 922 Student Deliverables

Group Case Assignments

A case write-up is required for all the cases in the reading list labeled 'Case Assignment' in the syllabus reading list. Each case write-up should consist of not more than 2 pages of text and be not less than 10 point Times Roman or equivalent font. You may have up to 3 pages of additional exhibits – graphs, Excel spreadsheets, MS Project printouts etc. A hardcopy of the assignments is due in the class on the day the case is listed in the Reading List at the end of this Syllabus. Case questions are posted under Assignments. Your team will also be required to present cases to the class. These presentations will factor into your final case assignment grade.

Final Case

The final case is an individual assignment. This case will be graded out of 100 points and will have the same format as all other cases. The individual final case is due anytime before 11:59 PM on Sunday of the final exam week. Upload an electronic copy to your digital drop box on Blackboard course info – be sure to hit 'send to instructor'.

Peer Evaluation

In an effort to evaluate individual effort you are required to submit team member peer evaluations. The evaluation will be in a word document form uploaded to your drop box on the course info web site. The form is posted under Assignments to Blackboard Course Info. Please see the important note on the following page and the course info web site for the evaluation form.

Case Write-Up Expectations

Please think of the two page write-up as a document you would give to your CEO and board. Also note the disclaimer given with the questions; that just answering the questions is not necessarily the 'answer' to the case. The goal of all of these cases is for you to simulate being real managers, making real decisions, for real cases.

More specifically, a not so good write up would just list the questions and provide answers to each question. A good write up would be a coherent 2 page memo clearly articulating the management decision and the logic supporting the decision, along with the important management issues to consider. An excellent write-up would, in addition, articulate relevant management insights that are not obvious.

It is not necessary to include detailed background on the firm in your write up, only relevant background supporting your decision. Most important is that you make a decision – the great thing about the MBA program is that it is a place to safely learn, and the right or wrong answer is not as important as the process you used to come to the decision.



Grading Details

All assignments must be completed. None are optional. Course grading will comprise of the following:

% total grade	
30%	Class participation, attendance, and peer evaluations
45%	All group case write-ups and presentations
25%	Final Individual Case Assignment

Where possible, all assignments will be graded blind. Group assignments should have all team member names on the first page, and a group name of your choice.

While not graded, you are obligated to participate in TeamNet for peer evaluations.

Peer Evaluations

As a last assignment, you are required to complete a peer evaluation of your final project team members and a self-evaluation of your class participation. This evaluation is helpful for determining grades of students who are on the borderline between an A, B, or a C, and for assigning your class participation grade. Note that the peer evaluation is not anonymous. These evaluations are confidential and will only be used by the professor for grading purposes. You may request to see your individual peer evaluations in the professor's office. All team member names will be deleted so you can see anonymous peer rating numerical scores and any comments pertaining to you.

Important Note: *All those who do not submit group peer evaluations to their Course Info drop box by 12:00 PM on the day of the final class will be penalized 10% of their grade.*



Other Important Information

Groups

There are no assigned groups. Teams of 4 are recommended with 5 as a maximum number.

Text

See the following reading list for the required texts, and the articles for each class. All articles are in the Case Packet. All cases will be available to download online from Course Info.

Mandatory First Class Attendance

There is no mandatory first class attendance. However, admission into the class after the first class will require the OK of an existing team to accept the new team member.

Attendance Policy

Students are expected to attend all classes. There is no formal attendance sheet for each class, however on occasion an attendance sheet may be circulated to spot-check attendance. Prof. Jeffery understands that interviewing is a time consuming process for students. However, please make an effort to schedule interviews outside the class time, and let Prof. Jeffery know in advance if you will miss class for any reason. It is most important that students attend classes with guest speakers, since the speakers are senior executives who are graciously donating their time to visit Kellogg.

Classroom Etiquette

Come prepared to ask and answer questions. **Please be on time.** Beverages and small food (bagels, muffins, etc.) are OK, but please be considerate of your classmates and refrain from consuming food with noisy wrappers, odors, etc. **No laptops connected to the Internet.**

Midterm Evaluations

Your feedback on the class is important and you will be asked to complete a web survey for the midterm evaluation.



TECH922 Managing Portfolios and Projects

Required Texts

Fundamentals of Project Management: Developing Core Competencies to Help Outperform the Competition, Second Edition, James P. Lewis, American Management Association, The Worksmart Series, 2001, ISBN: 0-8144-7132-3 (Amazon: \$10.36)

Required Software

Microsoft Project. Not needed until the sixth week. The tutorial is a good way to get started and learn the basics. Free 30 day trial demo copies of Project 2003 are available for download at:

<http://www.microsoft.com/office/project/prodinfo/trial.msp>

Reference Texts

Principles of Corporate Finance, Richard Brealey and Stewart Myers, McGraw-Hill, 1996.

Week 1

SUBJECT: Introduction

Part 1

No reading assignments

SUBJECT: Return on Investment (ROI)

Part 2

Return on Investment Analysis for E-Business Projects – Review of Basic Finance, Mark Jeffery, A chapter in the Wiley Internet Encyclopedia, 2004. A quick review of finance principles and ROI.

Case Assignment: B&K Distributors: Calculating Return on Investment for a Web-Based Customer Portal (Not a Hand in Case Assignment)

Week 2

Part 1

Case Assignment: ROI for a Customer Relationship Management Initiative at GST Inc. (Hand in Case Assignment and Presentation)

Avoid the Four Perils of CRM, D. Rigby, F. Reichheld, and P. Scheffer, Harvard Business Review, February 2002.

Part 2

Case: Sony-FIFA Partnership Marketing Program: The Value of Sponsorship. (Not a hand in assignment).



Boost your Marketing ROI with Experimental Design, Eric Almquist and Gordon Wyner, Harvard Business Review, October 2001, pp. 135-141.

Week 3

SUBJECT: Real Options

Part 1

Strategy as a Portfolio of Real Options, Timothy Luehrman, Harvard Business Review, September-October 1998. Reprint #98506.

A Real-World-Way to Manage Real Options, Tom Copeland and Peter Tufano, Harvard Business Review, March 2004.

Real Options Analysis, Johnathan Munn, Wiley Finance, 2002.

Chapter 3: *Real Options Analysis* and Chapter 8: *Advanced Options Problems*. **Please read before the class.**

Part 2

Technical Note: Real Options Valuation for Technology. **Please see the first page: You need to download and install the @Risk Trial Version from Palisade Software and download the Real Options Calculation macro from Course Info prior to class.**

Case: Merck & Company: Evaluating a Drug Licensing Opportunity, Richards Ruback, HBS, March 2003. (Not a hand in assignment)

Week 4

Part 1

Case Assignment: The Value of Flexibility at Global Airlines: Real Options for EDW and CRM (Hand in Case Assignment and Presentation)

Scientific Management at Merck: An Interview with CFO Judy Lewent, Nancy Nichols, Harvard Business Review, Jan-Feb 1994, pp. 88-99.

Will Real Options Take Root? Edward Teach, CFO Magazine, July 2003.

Part 2

SUBJECT: Project Management

Fundamentals of Project Management: Developing Core Competencies to Help Outperform the Competition, Second Edition, James P. Lewis, American Management Association, The Worksmart Series, 2001, ISBN: 0-8144-7132-3

This is an easy to read short book. Read the entire book before the first class on Project Management, and especially read Chapter 8 and be familiar with the acronyms BCWS, ACWP etc.



Week 5

Part 1

Case Assignment: Ariba Implementation at MED-X Inc.: Managing Earned Value
(Hand in Case Assignment and Presentation)

Part 2

*Microsoft Project workshop. **You need to download and install the Microsoft Project 2003 software free 30 day trial from Microsoft.com prior to the class.***

Week 6

Part 1

A Framework for Identifying Software Project Risks, M Keil, P Cule, K Lyytinen, and R Schmidt,
Communications of the ACM, Vol. 41, No 11. Nov. 1998.

Part 2

Case Assignment: A&D High-Tech Case A: Managing Projects for Success
(Hand in Case Assignment and Presentation)

The Mythical Man-Month – Essays on Software Engineering, Frederick P. Brooks, Addison-Wesley, 1982.
Chapters 2, 11, and 14. *This is the classic text on project management. Much of modern project management methodology was developed and understood during the IBM mainframe system development projects of the 1970's. An easy must read.*

Week 7

Part 1

Case Assignment: A&D High-Tech Case B: Managing Scope Change
(Hand in Case Assignment and Presentation)

Part 2

SUBJECT: Innovation Management

The 12 Different Ways for Companies to Innovate, Mohanbir Sawhney, Robert Wolcott and Inigo Arroniz,
MIT Sloan Management Review, Spring 2006.



Week 8

Part 1

Case Assignment: DuPont Tyvek – Managing Disruptive Innovation
(Hand in Case Assignment and Presentation)

Part 2

SUBJECT: Portfolio Management

Creating Project Plans to Focus Product Development, Steven Wheelright and Kim Clark, Harvard Business Review, March-April 1992. pp. 70-82. *A great article on R&D and Product Portfolio Management*

Best Practices in IT Portfolio Management, Mark Jeffery and Ingmar Leliveld, Sloan Management Review, Reprint 45309; Spring 2004, Vol. 45, No. 3, pp. 41-49.

Leveraging the New Infrastructure, Peter Weill and Marianne Broadbent, 1998
Chapter 2 and Chapter 6 are must reads.

ProSight Portfolios Workshop (Outside of Class, schedule TBA).

Week 9

Part 1

Case Assignment: ProSight: First Millennium Financial Technology Portfolio Management
(Hand in Case Assignment and Presentation)

Part 2

No readings

Week 10

Part 1

Case: Danaka Corporation, Inc. Growth Portfolio Management (Hand in Case Assignment and Presentation)

Part 2

Course Summary and Wrap Up

The final case assignment is due before 11:59 PM on Sunday of the final exam week. Upload an electronic copy to your digital drop box on Blackboard course info – be sure to hit ‘send to instructor’.