

Business Management 820N: *Project Management*

Spring 2009

Class times: MW 8:00–9:48 p.m.
Classroom: 355 Gerlach
Office hours:
1. MW 5:20–6:00 p.m.
2. From 1:00 p.m., as needed, on
Sundays (in 355).
3. By e-mail appointment (in 658).

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Required Course Materials

1. A sense of humor, an interest in learning and a sharp pencil.
2. Textbook: *Project Management: Tools and Tradeoffs*, T. Klasterin, Wiley, 1st edition, 2004, ISBN 0-471-41384-4.
3. A coursepack containing copyrighted case materials: available through Uniprint.
4. A variety of required materials posted on the course website: www.carmen.osu.edu

Course Description

The global trend towards shorter life cycles for products and services has led many companies to focus on improving their approaches to managing change. Many organizations increasingly recognize that introducing new products, processes, or programs in a timely and cost effective manner requires professional *project management*.

This course examines the management of complex projects and the tools that are available to assist managers with planning and controlling such projects. Some of the specific topics we will discuss include project selection, project teams and organizational issues, project monitoring and control, project risk management, project resource management, and managing multiple projects. Both “traditional” applications of project management (such as engineering or construction projects) and “modern” ones (such as IT projects or change management) will be discussed.

The course includes extensive use of software products that are available to assist project managers. We will study the relationship between these products and the requirements of managing large, complex projects. A general theme of the course is building bridges that resolve the apparent “disconnect” between highly complex practical projects and the limited functionality of the available project management software.

Course Prerequisites

The only formal prerequisite is good standing in a graduate program. However, the course is designed for students who *enjoy* solving business problems with decision models and spreadsheets. The course makes extensive use of formulation of *linear programming*, *binary programming* and *Monte Carlo simulation* models, and their solution using Excel software.

Project Management Software

A 120-day student version of Microsoft Project is included on the CD that accompanies the text. Also on the CD is a student version of @Risk Professional for Project, which is a Monte

Carlo simulation add-on to MS Project. In addition, we will be using Excel spreadsheets throughout the course to illustrate the types of decisions and tradeoffs that project managers face. Some Excel spreadsheets are also available on the CD that accompanies the text. The course website contains six software tutorials to assist in the development of spreadsheet models for different topics. Students will be expected to develop similar models and interpret their output when preparing case reports and exams.

Class Materials

Ideally, students should bring the lecture notes in their preferred format to class every day. Also, as indicated by the instructor, there are several class days on which other materials and a notebook computer will be useful.

Case Studies

Four case studies will be analyzed during the quarter. For each case study, each study group should complete a written analysis that *thoroughly but concisely* responds to the questions that are assigned.

Evaluation of Performance

	<u>Points</u>
Case reports (by study groups): 4 @ 40	160
Case presentation (by study groups): 1 @ 60	60
Class participation (individually): 1 @ 60	60
Final exam (individually): 1 @ 120	<u>120</u>
Total	<u>400</u>

General Procedures

1. The rules of the course do not allow you to share information regarding case studies with other study groups.
2. All case reports must be submitted at the start of class on their due date to receive credit, since possible case analysis solutions will be discussed in class.

Guest Speaker Presentations and Multitasking Simulation Game

The course includes presentations by three outstanding guest speakers, and the playing of an innovative multitasking simulation game originally developed for Executive Education. Students are expected (a) to prepare for and attend all four of these in-class events, and (b) to participate actively and constructively in them.

Advice from the Top Student of the Previous Class

"I think the keys to my success were that I did all the tutorials, I have a strong interest in business analytics, and I had already taken a lot of other analysis-based classes like 870, 871, and 855. I guess if I could recommend one thing, it would be to volunteer for the guest speaker hosting as I found it a very unique and interesting opportunity."

Final Comment

Bus. Mgt. 820N is an elective course being offered for the fourth time. The maximum benefit to the MBA Program will occur if the instructor and students all work *together* to enrich the learning experience and establish the course as a permanent part of the program.

Detailed Course Outline [Assignment date] [Guest speaker date] [Simulation game date]

<u>Week</u>	<u>Class Date</u>	<u>Chapter</u>	<u>Topic</u>	<u>Problems</u>	<u>Tutorials</u>
1	3/30, 4/1	1,2	Introduction, Project selection		T0
2	4/6, 4/8	2,3	Project organization	2.7, 2.9, 2.10	
3	4/13, <u>4/15</u>	3,4	Critical path method		T1
4	4/20, 4/22	4,5	Cost minimization	4.2, 4.3, 4.4, 4.8, 4.9	T2
5	4/27, 4/29	5,6	Planning with uncertainty	5.1, 5.3, 5.5, 5.6	T3
6	5/4, 5/6	6,7	Risk management	6.4, 6.5, 6.6	T4
7	5/11, <u>5/13</u>		Resource management		
8	5/18, 5/20	7,8	Resource management	7.1, 7.2, 7.3,7.4	T5
9	<u>5/27</u>	9,10	Monitoring and control	8.1, 8.2, 8.3	
10	<u>6/1</u> , 6/3	9,10	Managing multiple projects	9.1, 9.2, 9.3	
11	6/8	Final Exam			

Case Reports and Deadlines (see the assigned questions on the course website)

1. “ASSIST” – **April 22nd**.
2. “Gadget Toy Company” – **May 6th**.
3. “Hongkong and Shanghai Banking Corporation Limited: Hongkongbank Headquarters: (A)” – **May 20th**.
4. “Waterloo Regional Police Services: The CIMS Project (A)” – **June 3rd**.

Guest Presentations and Dates (see the following three pages for more details)

1. Sally Stark, *Director, Program Management*, New Product Innovations, Inc., Powell, Ohio, “Realities of a Project Manager” – **April 15th**.
2. Colleen White, *Project Manager*, Cardinal Health, Dublin, Ohio, “Practical Project Management – What You Don’t Learn in Class” – **May 13th**.
3. Mike Kreider, *Director of IT*, Automotive, Chemical and Industrial Business Unit, Exel Corporation, Westerville, Ohio – “Delivering Supply Chain IT Solutions - On-Time, On-Budget, Meeting Expectations” – **May 27th**.

Guest Presentation 1

Speaker: **Sally Stark** (New Product Innovations, Inc., Powell, Ohio)

Title: "**Realities of a Project Manager**"

Date: in class, **April 15th**

Class Objectives

To enable students to:

1. Assess skills and abilities necessary to be an effective project manager
2. Determine reasonable application of project management tools
3. Recognize the challenges facing project managers
4. Describe the different aspects of projects deemed successful

Biosketch

Sally has over 20 years of management experience including nine (9) years launching new products manufactured in Asia for the US market. She is currently the Director of Program Management at New Product Innovations, Inc, (NPI) a global product design, development and manufacturing company. NPI has its headquarters in Powell, Ohio and has offices in Hong Kong, Guangzhou, and Shanghai, China.

Sally has experience in both large and small companies, and in the profit and non-profit sectors. She started her career at General Motors and advanced to Manufacturing Engineering Manager for Electrical and HVAC Systems at Saturn Corporation where she had the additional responsibility for launching the 1994 Saturn car line. She also spent several years as the Director of Operations at a children's science museum in Pennsylvania. At New Product Innovations (NPI), Sally has been a Program Manager for new product development and manufacturing projects. She has launched nine (9) new product lines during her time at NPI. Sally received her BS from The Ohio State University, College of Engineering, and an MBA from Indiana University.

Guest Presentation 2

Speaker: **Colleen White**, PMP (Cardinal Health, Dublin, Ohio)

Title: **“Practical Project Management – What You Don’t Learn in Class”**

Date: in class, **May 13th**

Class Objectives

To enable students to:

1. Identify and implement tools/techniques, essential to the success of a project and project manager, that:
 - Enable smooth working relationships between the functional manager, project manager, project sponsor, and team members
 - Assist the project manager in effectively communicating to team members and other stakeholders
 - Balance the triple constraints of time, scope and budget
2. Recognize processes that can enable a company to:
 - Prioritize projects
 - Allocate resources
 - Prioritize activities within a project
3. Discuss the offerings of the Project Management Institute (PMI) such as:
 - Global standards
 - Local programs
 - The PMP credential

Biosketch

Colleen has over twenty years of experience in project management, process redesign, quality management and training/development. She is currently an IT project manager at Cardinal Health. Colleen has successfully lead a number of technology projects including implementations of an electronic mail system, redesigned Help Desk, payroll system, Human Resources applicant tracking system, and competency assessment system. Non-technology projects include patient care redesign, quality management systems, global project management standards and regulatory agency/Sarbanes Oxley (SOX) compliance. Colleen received her BS from Wheeling Jesuit University and MA from the Ohio State University. She is a certified project management professional (PMP) and is active in the Central Ohio Chapter of the Project Management Institute. She is a member of their Training Management Board, and in this role teaches and administers the PMP certification class.

Guest Presentation 3

Speaker: **Mike Kreider**, PMP (Exel Corporation, Westerville, Ohio)

Title: “**Delivering Supply Chain IT Solutions - On-Time, On-Budget, Meeting Expectations**”

Date: in class, **Wednesday, May 27th**

Class Objectives

To enable students to:

Apply accumulated formal Project Management training and education to successfully manage projects by:

- Isolating case-examples of ‘real world’ threats, to each project phase, which they are likely to encounter while managing their own projects.
- Discussing how those threats, when left un-managed, will have detrimental implications to the delivery of their projects.
- Identifying specific solutions, and general strategies, for dealing with these challenges successfully.

Biosketch

Mike Kreider has nineteen years of information technology implementation and management experience. Mike spent the first 9 years of his career with the Dupont Company working on supply chain technology solutions in various roles including programmer, systems analyst, project leader and team leader. Mike served as Director of Information Services with Metatec Corporation for 5 years where he lead a team responsible for implementing Peoplesoft ERP, Manhattan warehouse management system, and developing an online supply chain visibility tool. Mike has been with Exel, the world's largest 3rd party logistics service provider, for the past 5 years as a Program Manager in the Consumer, Retail and Life Sciences business unit and currently as Director of IT for the Automotive, Chemical and Industrial business unit. Mike's team is responsible for project management and implementation of supply chain IT solutions for customers. Mike is a certified Project Manager Professional (PMP) as recognized by the Project Management Institute. Mike has a BSBA from The Ohio State University with a major in information systems. Mike has an MBA from the Fisher College of Business at The Ohio State University where he was a member of Cohort 1 in the Executive MBA program. During spring quarter, Mike teaches M&L 882N, MBLE Software and Technology, at The Ohio State University. Mike and his wife Tammy reside in Hilliard and have two daughters - Alyssa (11) and Abigail (9).

Case Report Writing

The expectations for case reports are high, as in a top 10 MBA program. The following format has evolved over several years as being most suitable for the integration of technical analysis and business insights in MBA case reports. This format provides a very effective, concise, logical and high impact written presentation. Each student group is assumed to be a team of consultants addressing the consulting task(s) described in the case. Two examples of excellent case reports are posted on the course website.

1. Executive Summary

Purpose: present detailed recommendations without supporting information. Give enough details to permit implementation of your recommendations. Use of tabular format is encouraged. Try to make a strong first impression in order to capture the reader's attention.

2. Background

One sentence describing the consulting task(s). One sentence describing the consultants.

3. Assumptions

- a. Assumptions of the problem itself, extracted from case information.
- b. Assumptions of the model used (where applicable), each first briefly explained and then justified by practical comments.

Use of tabular format is encouraged in both items 3a and 3b.

4. Analysis

Purpose: convincingly justify the recommendations in the Executive Summary. Describe the model(s) used. Descriptions need to be detailed enough to permit verification. Lengthy material may be placed in an Appendix, but requires a citation here.

5. Other Recommendations

Include one or more unique extensions or analyses that go beyond answering the case question. Creativity, when combined with relevance, is strongly encouraged.

Items 1 through 5 should not be more than 3 single spaced pages in 12 point font, with conventional margin spacing. A 2 page report which has the same content as a 3 page report is better.

6. Appendix (not included in the page limit)

Where applicable: printouts, charts and figures. All items must have a citation in the body (items 1 through 5) of the report.

Overall Advice

Consider how a senior manager in the client organization would react to your report. Is it well organized? Is it convincing, in that all the recommendations are well supported? Are all the necessary definitions given? Is the report interesting to read? Is it impressive and "high impact"? Is it likely to generate a second consulting contract? Considering asking a friend who is in business (but not taking the course) for constructive comments.

Presentations of Case Analysis

The expectations for the presentations are high, as in a top 10 MBA program. The most important thing is to give the necessary information and enjoy yourself while giving it. If you enjoy it, the audience probably will also. I base the following comments on my experiences listening to about 250 MBA presentations at OSU, and another 50 at Wharton, Kellogg and Berkeley.

1. The only really bad outcome would be to fail to cover all the main points in 15 minutes. While your presentation itself will not be terminated at 15 minutes, the evaluation of it will be. Therefore, it is important to practice your timing. You may want to ask the audience to defer their questions to the end, so as not to lose time.
2. All students are expected to attend the presentations and participate by asking questions. If your answer differs significantly from that of the presenting group, this needs to be addressed *during the discussion*, rather than later.
3. At the start of your presentation, I will need a hard copy of the Powerpoint handout (usually 6-to-1). I will write on it some comments which I hope will be helpful to you in the future.
4. For the purposes of the presentation, you are consultants and your classmates are your clients. Therefore, you should not refer to “the case” or “the course” or “the professor”. Obviously, you would like a second consulting contract. Is your presentation impressive enough to earn it?
5. Either one or two speakers is probably best. Having three or more speakers in a 15 minute presentation loses too much time in the transitions. Moreover, it stresses the audience, since they need to keep adjusting to different speaking styles. Other group members can participate by answering questions from the front of the room afterwards, operating the computer, assisting with a demonstration, distributing handouts, and so on. It is important to choose the speaker(s) from within your study group carefully, possibly by holding auditions, since the entire group will be evaluated on their performance.
6. Your presentation can be as informal, humorous, offbeat and irreverent as you like. (I may regret this comment later 😊.) But you need to treat the comments and questions from the audience seriously, and address them professionally.
7. It is your responsibility to ensure that there are no hardware / software problems. Presumably, you will want to practice your presentation system live beforehand. I will be available to view and critique a practice presentation, on either the Sunday or Monday before the actual presentation.
8. There is absolutely no obligation to dress more formally than usual while giving your presentation. However, if you feel that it enhances your presence, then go ahead.

Class Attendance and Participation

1. MBA program admission decisions are based substantially on business experience. A major reason is that MBA program courses *expect* active participation by students, so that all students can share and learn from each others' experiences and insights.
2. In the context of the previous sentence, merely attending class does *not* constitute "active participation". In fact, more is expected, especially in elective classes which presumably match students' long term career interests.
3. Students who consistently answer questions, ask interesting questions or contribute good ideas to class discussion can expect to receive between 40/60 and 60/60 points, depending on the quality of participation. A good rule of thumb is that each student should participate actively at least every third lecture class. Quality of ideas is more important than quantity.
4. Nonetheless, regular class attendance is valuable. Therefore, students who attend all classes, and maintain a professional attitude (such as would be expected in a business meeting), but do not participate actively, can expect to receive 20/60 points. Attendance at all the four special events – the three guest speaker presentations and the simulation game – is *expected* of all students. Half of the participation credit is allocated to those events.
5. Students whose classroom activities would be inappropriate in a business meeting can expect to receive 0/60 points. Examples include using a computer to read e-mail or surf the www, or eating a meal, during class time.

Final Exam

1. Exam Schedule

The exam is scheduled for Monday, June 8, 8:00–10:30 PM, in 321/345 Mason Hall. Room assignments will be organized in class.

2. Exam Philosophy

In an MBA program, an exam should measure how much a student has learned about solving business decision problems which is exportable to the workplace. It follows that the exam needs to simulate the workplace as closely as possible. In a project management course, this means that the exam should (a) allow open access to all materials, and (b) be computer based.

3. Testable Materials (possibly subject to minor change, as discussed in class)

Chapter 2: Selection

-- Use of binary optimization and linear programming models to make project selection decisions, under resource and other constraints.

Chapter 4: Networks and CPM

-- Use of MS Project to draw AON networks and find critical paths, critical activities, and related information including slack.

Chapter 5: Cost

-- Use of linear programming models to evaluate time / cost tradeoffs in setting delivery times and making optimal decisions about crashing.

Chapter 6: Uncertainty

-- Use of Monte Carlo simulation models to estimate expected critical path lengths and related information, and comparison with classical PERT estimates.

Chapter 7: Risk Management

-- Use of spreadsheet models to evaluate direct and indirect costs under various outcomes involving risk.

Chapter 8: Resources

-- Use of MS Project, including setting priorities, to perform both automatic and manual resource leveling.

Chapter 9: Monitoring and Control

-- Use of spreadsheet models to compute a variety of cost and time performance measures.

4. Advice and Procedures

- a. Bring to the exam all materials related to the course.
- b. Ideally, bring to the exam a notebook computer loaded with MS Project, MS Excel with the relevant Add-Ins, and (if you like) @Risk. If you cannot bring a notebook computer, a desktop computer with the software loaded will be provided for you. In either case, you will probably need to print your solutions from the desktop computer.
- c. It is important to realize that the version of MS Project which is included “free” with the textbook is not extremely stable. Consequently, having it open at the same time as other programs can cause significant problems.
- d. Your solution should be a brief Executive Summary that contains the key decisions and numbers in your solution, typed in MS Word. You can attach standard printouts from the software. Please label the printouts clearly and refer to them in the text.
- e. The 2 hour 20 minute exam period will be enough time if you bring the appropriate materials and work efficiently during the exam.
- f. If necessary, adjust the default settings in your software to provide the best possible results. An example is the “Tolerance” setting in Excel, which should normally be set to 0%.
- g. Give as much information as possible about how your solutions were developed. For example, if using linear programming, provide the full details of your formulation.
- h. For the period of the exam, you should not communicate with others.

5. Exam Labs in 321/345 Mason

- a. The exam labs are usually kept locked, but will be opened 15 minutes before the start of the exam. In view of the information which follows, there should be no need to visit the lab beforehand.
- b. The computers don’t have floppy disk or CDROM drives. In order to transfer files to the desktop computer for printing, you should bring a USB-accessible storage device.
- c. Here is how to access the various programs:
 - MS Excel is on the desktop (at the bottom).
 - The Excel spreadsheets that accompany the textbook are on the desktop.
 - To access MS Project, click on Start → Programs → Microsoft Project.
 - To access @Risk, click on Start → Programs → Palisade Decision Tools → @Risk.

d. Here is how to print:

File → Print.

The default printer is the one in the room.

For the First Class on 3/30/09

1. You need to read the frequently asked questions document for the course.
2. If you would like to take the course, but are concerned that your modeling background is not adequate, you need to read the material suggested under question Q2 in the frequently asked questions document.
3. You need to purchase and bring the textbook.
4. You need to purchase the coursepack from Uniprint and bring it. Please note that the order of the case assignments was changed after the submission of materials to Uniprint for copying. The order in this syllabus is correct.
5. You need to read thoroughly and bring this syllabus. We will not spend class time going over the syllabus, but there will be a chance to ask questions about it.
6. You need to access the course website on Carmen, read the overview of the materials (Item I.A), briefly survey all the materials posted, and bring any questions about them to the class.
7. You need to bring the lecture notes in whatever format you prefer for convenient note taking. For the first class, 30 pages will be enough.
8. You need to find a study group. The best current estimate of the study group size is six or seven. In order to be fair, a group size of eight is too large. If possible, study groups will be organized on the first day of class; otherwise, they will be organized on the second day of class.
9. You do *not* need to bring a hard copy of any of the software tutorials to the first class, but there will be several later classes where you will need them.
10. You do *not* need to bring your notebook computer to the first class, but there will be several later classes where you will need it.