

TTMG 5005 (formerly 96.505)

MANAGEMENT OF TELECOMMUNICATIONS SYSTEM DESIGN

Winter 2003

**Department of Systems and Computer Engineering
Carleton University**

Professor Bailetti

Office: 4476 ME

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Class: Thursday, 6 to 9 p.m.
405 Dunton Tower

Office Hours: Thursday, 4:45 to 5:45 p.m. in 4476 ME

Office Hours and Instructor Availability

Office hours are from 4:45 to 5:45 p.m. on Thursday in 4476 ME and after class in 405 DT. The instructor is available to you via e-mail any time. If you need to meet, please make an appointment.

Calendar Description for TTMG 5005

The focus is on the groups that evolve the architecture and technological infrastructures of firms and on product management. Topics include: relationship between architecture and product management; appropriability regimes; technology and complementary assets; managing projects that deliver products at different stages of their life cycles.

Objective

The objective of TTMG 5005 is to develop the skills required to undertake research on:

- the links that engineering groups must establish with customers, investors and partners at each stage of the technology life cycle (TLC)
- the design and sale of competitive offers
- leading groups that design and support telecommunications systems

In this course we learn:

- how to design and sell architectures, technology and products for stakeholder value
- the hierarchy and dynamics of competitive advantage
- the TLC
- how to sell to organizations that purchase telecommunications systems
- how to lead people who deliver technology

The course will be delivered from the perspective of the people who deliver technology. It views technology development, product development, marketing, and sales as a total system of business actions, and not a fragmented assortment of functions, institutions or specialized formulas.

The set of imaginative ideas that provide suppliers of telecommunications systems with competitive advantage over time is what matters. This course is not about lists of attributes of the marketing, sales or development functions.

Benefits

Upon course completion, participants will be able to:

- identify areas to undertake research
- develop competitive offerings at different stages of the TLC
- prepare effective sales proposals to customers, partners and investors
- lead people who deliver technology

Required books

The books required for this course are:

1. Glen, Paul (2003) *Leading Geeks*. Jossey-Bass; ISBN 0-7879-6148-5 (US \$18.87)
2. Kantin, Bob (2001) *Sales Proposals Kit*. Hungry Minds; ISBN 0-7645-5375-5 (US \$20.99)
3. Kouzes, James M. and Barry Z. Posner (2002) *The Leadership Challenge, 3rd edition*. Jossey-Bass; ISBN: 0787956783 (US \$19.57)
4. Moore, Geoffrey (2002) *Living on the Fault Line*. Harper Business; ISBN 0-06-008676-9 (US \$18.87)

You can purchase these books on a group or individual bases wherever you like. The prices shown above are from www.Amazon.com and are provided as a reference so you do not overpay. If the 4 books are bought at Amazon.com selecting the 9-11 days shipping speed option, the total price is: US \$89.75 (\$78.30 for the four books plus \$11.45 for shipping and handling).

Other resources

- Iacobucci, Dawn (2001) *Kellogg on Marketing*. Wiley; ISBN 047135399-X
- Kotler, Philip (1999) *Kotler on Marketing: How to Create, Win and Dominate Markets*. The Free Press; ISBN: 0-6848-50338.
- Wiefels, Paul (2002) *The Chasm Companion: Implementing Effective Marketing Strategies for High-Technology Companies*. Harper Business; 0-06-662055-4.

Requirements

Each participant is required to:

1. be prepared for and attend classes
2. study:
 - Glen, Paul (2003) *Leading Geeks*. Jossey-Bass; ISBN 0-7879-6148-5
 - Kantin, Bob (2001) *Sales Proposals Kit*. Hungry Minds; ISBN 0-7645-5375-5
 - Kouzes, James M. and Barry Z. Posner (2002) *The Leadership Challenge, 3rd edition*. Jossey-Bass; ISBN: 0787956783
 - Moore, Geoffrey (2002) *Living on the Fault Line*. Harper Business; ISBN 0-06-008676-9
3. work in a group to complete and present two assignments: Sales Proposal and Leadership Assessment
4. complete and present one individual assignment: Research Proposal
5. complete a take-home term examination

Grades

Grades will be assigned using the following weights:

<u>Deliverable</u>	<u>Membership</u>	<u>Weight (percent)</u>
Research Proposal	Individual	30
Sales Proposal	Group	30
Leadership Assessment	Group	20
Term Exam	Individual	20

TTMG 5005 Class Schedule

Be prepared to discuss the material identified below:

Day	Deliverable	Topic	Leading Geeks (Glen)	Sales Proposal (Kantin)	Leadership Challenge (Kouzes/Posner)	Living on Fault Line (Moore)
Jan 9	Course outline	<ul style="list-style-type: none"> Expectations set for course and thesis Basic concepts 				
Jan 16		<ul style="list-style-type: none"> TLC, external links and leadership Integrating engineering with stakeholders Parts of a Sales Proposal 		1, 2, 3, 4, 5		7, 8, 9, 10, 11
Jan 23	Group composition	<ul style="list-style-type: none"> Competitive advantage Answering customers' questions: What is in it for us? Why you? 		6, 7, 8, 9, 10		4, 5, 6
Jan 30		<ul style="list-style-type: none"> Managing for stakeholder value What leaders do 			1, 2	1, 2, 3, 15, 16
Feb 6	V1 Sales Proposal Presentation	Preparing internal sales proposals		17, 18, 19, 20, 21		
Feb 13	V1 Research Proposal	<ul style="list-style-type: none"> Assessing value of internal sales proposals Leading people who deliver technology 	1, 12, Appendix, 2, 3, 4, 5,	15, 16		
No class						
Feb 27		Leadership in engineering organizations	6, 7, 8, 9, 10, 11		3, 4, 5, 6, 7, 8,	
Mar 6		Leadership and TLC			9, 10, 11, 12, 13	12, 13, 14,
Mar 13	V1 Leadership Assessment Presentation	Links that engineering groups must establish with customers, partners and investors depend on TLC				
Mar 20		Engineering groups' links and TLC				
Mar 27	V2 Sales Proposal Presentation and Submission	Engineering groups' links and TLC				
Apr 3	V2 Research Proposal Presentation and Submission					
Apr 10	Exam is provided V2 Leadership Assessment Presentation and Submission	Lessons learned inventory				
Apr 17	Exam is due at 6 p.m. in 405 DT					

Assignments and Examination

Research Proposal

Objective

Define a research proposal that is focused on:

- one or more of the links that engineering groups must establish with customers, investors and partners
- the design and sale of competitive offers
- leading groups that design telecommunications systems

Due dates

Feb 13 Present V1 of Research Proposal

Apr 3 Submit and present V2 of Research Proposal assignment. Submit 10 pages of body maximum. You can add as many appendices and references as you'd like. I expect a professionally written proposal that meets the criteria set forth for graduate research in the TTM program.

The research proposal must demonstrate that you understand what graduate research in the TTM program is about. A proposal must:

1. Define an important research question or a problem
2. Build on the existing literature to explain why the chosen research question or problem is important
3. Explain the contribution your research will make to the academic literature and management practice
4. Explain what data you will get, where you will get it, and how you will get it
5. Describe how you will analyze the data

Sales Proposal

Objectives

Work in a group of 2-3 individuals to:

- define a competitive offer
- prepare an internal sales proposal to develop the competitive offer for your key stakeholders
- prepare a sales proposal to early customers
- present the sales proposals to the class

Due dates

Jan 23 Written notification of group composition and short presentation (no slides)

Feb 6 Present V1 of Sales Proposal

Mar 27 Submit and present V2 of Sales Proposal assignment. Submit 10 pages of body maximum. You can add as many appendices and references as you'd like. I expect a professionally written proposal: compelling, clear, concise, and well organized.

Leadership Assessment

Objective

Work in a group (no limit on size) to define a model, tool and a process that can be used to assess an individual's ability to lead people who deliver telecommunications systems.

Due dates

Jan 23	Written notification of group composition and short presentation (no slides)
Mar 13	Present V1 of Leadership Assessment
Apr 10	Submit and present V2 of Leadership Assessment. Submit 10 pages of body maximum. You can add as many appendices and references as you'd like. I expect a professionally written document that includes the model, statements and process that can be used to assess leadership ability in a technical organization.

Examination

The take home exam is an individual effort. The exam will be distributed on Thursday April 10 and is due on Thursday April 17 at 6 p.m.

Presentations

Presentations are an important part of what we do in graduate school. You are required to conduct yourselves in a very professional manner when making presentations and providing feedback to others on their presentations.

For each presentation:

- Send via e-mail what you will present to all members of the class the day before (1 p.m. at the latest)
- Be thoroughly prepared, you need to know the material that you will present well
- Look at your audience, not the instructor or the slides or paper
- Do not read the slides
- Show slides that can be read by your audience
- Emphasize in your slides the key points of your presentation, smart people can only remember 7 points
- Manage time properly
- Avoid wasting time talking about the agenda, show the agenda and move on
- Use diagrams if you are to convey many ideas
- Slow down so your audience understands what it is that you are talking about
- Do not stand between your audience and the slides in a way that your audience cannot see the slides

Typically, each presentation (group or individual) and the question and answer period lasts 20 minutes.

Group Work

Group work is another important component of this course. You may elect to work in the same group to prepare assignments or work in different groups. Group conflicts are to be dealt with by the group in a way that is fair, fast and without personal attacks.

Free-loaders are not welcome anywhere. This course is no exception. The best way to deal with free loaders is to not include their names in the first page of the group assignments. If a student's name does not appear in an assignment submitted by his or her group, the student must submit his or her own assignment. There is zero tolerance for free loaders.

Students with Disabilities

Students with disabilities requiring academic accommodations in this course are encouraged to contact a coordinator at the Paul Menton Centre (PMC) for Students with Disabilities to complete the necessary

letters of accommodation. After registering with PMC, make an appointment to meet and discuss your needs with your instructor at least two weeks prior to the midterm exam. This is necessary in order to ensure sufficient time to make the necessary arrangements. Please note the following deadlines for submitting completed forms to the Paul Menton Centre: February 1 for Winter term courses.

Plagiarism

Passing the work of others as if it was your own is a serious offence. There is zero tolerance for plagiarism.

Administrative Details

Missing Classes

- Please notify the instructor via e-mail if you will not attend a class.
- If a student misses a class, it is the student's responsibility to find out from classmates what was covered, what assignments were made and what handouts were distributed.

Class Preparation

- You must be prepared for each class. You do so by reading the material assigned and being prepared to discuss in class how what was read can be applied in product development organizations.
- Students selected for potential presentation must make their slides available to all other students the day before (no later than 1 p.m.)
- If an emergency prevents you from being prepared for class, notify the instructor before the start of class.

Starting and Ending on Time

- The instructor does his best to use class time effectively, each class will start and end on time.
- Students should not make being late for class a habit.