

**Process Engineering and  
Business Process Change Management  
MEM 416  
MEM – Winter 2015**

**Course summary**

Today's business processes are often complex and multi-disciplinary in nature. Most business processes are often sub-optimized for the purposes of meeting the needs of the functional organization and/or its management structure rather than the true needs of the customers or of the business itself. This course emphasizes the "systems" approach to taking a holistic view of the needs of the business and how they are fulfilled by the processes, systems and resources within the organization with an eye towards achieving globally optimal solutions that meet or exceed the needs of the business while leveraging and combining human resources, capital assets and optimized business processes

This course is intended to be an overview of the field of change management and business process re-engineering. This course will equip the student to understand complex change management programs, how to define them, how to measure them and how to successfully implement them across the enterprise. This course will help students determine when such interventions are needed and how they are best applied. This course allows students HANDS ON experience in developing a change management plan or in developing a small scale process improvement in their home organizations

From a theory perspective, this course will leverage the fields of decision management, organizational development, socio-technical systems and action research. The text will be heavily supplemented with cases, materials and outside the classroom experiences including field research, data collection and real life business process re-engineering. Approximately 40% of the grade will be based on projects and experiences outside the classroom

Each week will have a textbook topic, and a parallel theme in the casebook. Where the textbook dwells on techniques and theory, the casebook dwells on applications and industries. The two are intended to complement each other.

**Textbook**

[ISBN-13: 978-0128003879 ISBN-10: 0128003871 Edition: 3rd.](#)

[Business Process Change, Third Edition: A Business Process Management Guide for Managers and Process Professionals... Paul Harmon](#)

**Grading**

Midterm exam	25%-In class
In class participation	15%
Homeworks	20%
Research project	15%
Process design project-	25%

**Midterm exam.** This exam will be open book and open notes and will be conducted in week 6 of the course and will be based mostly on textbook, case and classroom materials reviewed to date

**Homework problems.** At least two homework problems will be assigned to students that will allow them to implement the theory and process descriptions supplied in class. Every attempt will be made to make these assignments hands on and practical

**Research project.** This project is meant to be completed individually and in a work setting. The assignment is to understand the completed process assessment(s) within a given organization. This requires extensive interview of the participants in a recent (last 2 years) process compliance or maturity audit. Examples of this type of audit include but are not limited to ISO9001, SEI maturity assessment, Malcolm Baldrige etc.

What is required is an assessment of the audit process and preparation required, issues and follow-up actions that resulted from the audit, findings, an impact analysis and opportunity analysis on the findings for the business itself. How could the business benefit from higher process conformance/maturity and what tangible benefits has the business realized from the process focus.

**Process design project.** This project is a full fledged process redesign from a real world situation obtained by the students in their work setting. Problematic or costly processes are encouraged to be used. All the steps typically followed in a process redesign should be clearly demonstrated in this project. The project culminates in an oral presentation in class in the last week of class. The deliverable is either a change management project plan (in the case of large scale changes) or an actual process improvement project implementation (in the case of small scale incremental projects). Students should prepare a 7 page report along with a 15 minute presentation to the class. This project may be completed individually or in small groups-larger groups should have more elaborate plans

**In class participation** will be graded based on the amount of engagedness the student demonstrates in the classroom discussion and the contributions made to progressing the dialogue. Of course, lack of attendance seriously degrades this portion of the grade. Missing of two classes or more will result in a seriously diminished participation grade

**Curving.** I will be curving the total composite scores to fit a distribution that reflects the performance of the class as a whole. If your composite score is in the bottom half of the class, you risk getting less than an A in the course

## **Course outline**

### **Business Process Change**

*Part I: Process Management: Strategy, Value Chains, and Competitive Advantage*

Process Architecture and Organizational Alignment

Foundational theme: Taylorism

Parallel theme: New product development, case: Technology integration, by Iansiti and West

*Part II: Modeling Organizations And Processes: Modeling Organizations*

Modeling Processes

Analyzing Activities

Parallel theme: product development process and innovation by Mankin, Managing suppliers by Handfield

*Part III: Managing And Improving Business Processes: Managing and Measuring Business Processes*  
Managing Business Processes

**Process Improvement with Six Sigma.**

*Part IV: Business Process Redesign: A Business Process Redesign Methodology*  
Process Redesign Patterns.  
Parallel theme: Delivering excellent service, by Robert Ford, the lean service machine by Karen Swank

*Part V: Business Process Automation: Workflow and XML Business Process Languages*  
ERP-Driven Redesign  
Software Development.  
Parallel theme: Business process re-engineering case note-9-396-054  
Guest speaker: Plamen Petrov: on workflow management and tools for the 21<sup>st</sup> century process digitization and the link to knowledge management

*Part VI: The E-Business Challenge: E-Business: Portals and Customer-Oriented Applications*  
Supplier and Internally Oriented E-Business Applications.  
Parallel theme: Mount Auburn Hospital, Physician order entry

*Part VII: Putting It All Together: Case studies in process integration*  
Software Tools for Business Process Development  
Parallel theme: Supply chain challenges  
Guest speaker: Dan Heck on digital six sigma

*Part VIII: Process mapping, process optimization and value engineering*  
*Parallel theme: Beyond Toyota, beyond lean*  
*Parallel theme: New product development acceleration and speed/profitability*  
*Final project presentations*

# Bibliography

*Werwath*

Assessment and Control of Software Risks, Capers Jones, Prentice Hall, 1994. (A classic SW project management text focused on risk management)

Augustine's Laws, Top Executive Looks at the Complexities of Today's Business Management and Offers Solutions, Norman R. Augustine, AIAA, 1997. (A sarcastic yet insightful look at modern corporations)

Beyond re-engineering, How the process centered organization is changing our work and our lives, Michael Hammer, Harper Collins Business, 1996. (Among one of the classic Hammer texts on business process re-engineering-BPR)

**Breakthrough Technology project management. Kathryn P. Rea, Academic Press, 1998**

Comprehensive Project Management: Integrating optimizing models, management principles and computers, Adedeji Badiru, P. Simon Pulat, Prentice Hall, 1994. Somewhat obscure text looking at PM from the enterprise perspective

Creating an Environment for Successful Projects, Robert Graham, Jossey-Bass, 1997 (One of the newer texts on the systemic issues that often block PM implementation-**recommended**)

Design for six sigma, C.M. Creveling, Prentice Hall, PTR, 2003

Essentials of Project and Systems Engineering Management, Howard Eisner, Wiley, 1997 (Systems engineering focused-Text option 1)

Finding Time, How Corporations, Individuals and Families can Benefit from New Work Practices, Leslie A. Perlow, Cornell University Press, 1997. (A quick read on time management in the 90s)

A Guide to the Project Management Body of Knowledge-PMI Standards committee, 1996 (a bit dry but a useful and well organized reference, the PM standard!)

Handbook of Leadership Development, Center for Creative Leadership, Jossey Bass, 1998

Hope is not a Method, Gordon R. Sullivan, Broadway Books, 1996. (Military approach, written by an ex-general. Great stuff on learning organization and after action reviews-**recommended**)

Managing High technology programs and projects, Russell D. Archibald. 3rd edition, Wiley and Sons, 2003. very practical text from an IT perspective

Managing New Product and Process Development: Text and Cases, Kim B. Clark and Steve C. Wheelwright, Free Press, 1993. (Somewhat dated casebook from Harvard Business School-A classic in its day)

Organizational Culture and Leadership, Edgar Schein, Jossey Bass, 1992

Organizational Development and Change, Thomas Cummings and Christopher Worley, Southwestern College Publishing, 1993

Presentation of self in everyday life, Erving Goffman, Anchor, 1959

Productive Workplaces, Organizing and Managing for Dignity, Meaning and Community, Marvin Weisbord, Josey-Bass, 1987. (More of an OD text, traces the history of management science very nicely)

Rapid Development, Taming Wild Software Schedules, Steve McConnell, Microsoft Press, 1996 (Very software oriented and a little wild. The author has wonderful, and sometimes fun, insights and it's a great read but a long read)

Reinventing Work-The Project 50, Tom Peters, Knopf, 1999 (A quick fifty things to do....an unusual book for those who like lists)