VERSION 8.0

COURSE SYLLABUS – MGT 613WS

MGT 613WS – PROGRAM AND PORTFOLIO MANAGEMENT & THE PROGRAM MANAGEMENT OFFICE

Fall 2009

Stevens Institute of Technology

Class Time and Location:

Starts September 14, 2009 for 13 consecutive weeks; ends December 14, 2009
Web-based

Instructor:

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Course Objectives:

The primary objective of this course is to enable participants to gain both a theoretical and practical orientation to the disciplines of Program Management & Portfolio Management as well as to a Program Management Office (PMO). Although Project Management has become a well-defined discipline over the past 2 decades with a standard set by the Project Management Institute (PMI; US), many of the principles and processes set forth by the PMI appear to be best suited to the Information Technology (IT) industry. Experience has shown that there is an uneasy extrapolation of these principles and practices to 2 other major industries, namely Research & Development and Financial Services. The course begins with an outline of the fundamentals of Projects, Programs, & Portfolios as well as roles and responsibilities of those involved in their active management. The second portion of the course begins with a description of the 7 fundamental underpinnings of Program Management as described by the Office of Government Commerce (OGC; UK), with a detailed focus on (a) developing a Business Case and (b) managing an effective Program Plan. The third part of the course begins with a detailed assessment of the fundamentals of Portfolio Management and progresses through a sequential series of building blocks in Risk Analysis, Resource Management, and Valuation. The next portion of the course focuses on 2 of the most critical competencies of the Portfolio Management discipline – Project prioritization, and Portfolio optimization & diversification. The final portion of the course examines the 3 most important core operational areas of a PMO – (a) consulting and support, (b) knowledge maintenance, and (c) knowledge maintenance. In the penultimate course module, the impact of organizational dynamics on the successful implementation of Program & Portfolio Management and a PMO are discussed. The course concludes with a description of Capability Maturity Models (CMM) for Program & Portfolio Management and the PMO and requires each student to assess his/her organization's maturity level in these disciplines. Throughout the course, students are exposed to the use of Decision Analysis and optimization software in the form of Tree Plan and Premium Solver.

This course is designed for professionals across multiple industries who may possess a technical background and have had little formal training in managing Programs, Portfolios, and a PMO.

Course Content:

Course material is presented in a manner that encourages constructive debate and dialogue and an exchange of information among all participants. The instructor draws on more than a decade of experience in Project, Program, & Portfolio Management, and Decision Analysis within the Pharmaceutical & Biotechnology industry and utilizes his experience to augment class lectures with vignettes of Program & Portfolio Management and PMO failures and successes. Students will learn to address impediments to the successful implementation of effective Program & Portfolio Management and the PMO and will enhance their understanding by dissecting 3 case studies in Program & Portfolio Management and the PMO.

Class reading is drawn from selected textbooks, and lecture materials are drawn from the instructor's academic and public workshops. Assignments include preparing ahead of class for analysis of case studies as well as learning the fundamentals of Tree Plan and Premium Solver software.

This course starts by establishing fundamental definitions of a Project, Program, and Portfolio as well as the management of each as distinct disciplines. Using a carefully planned, stepwise approach, individual participants are challenged to utilize the concepts learnt in class to perform several diagnostic measures of their own organizations. Although the principles and processes of Project Management are well documented, participants are urged to recognize the importance of making Project-specific decisions in the context of (a) the larger Portfolio as well as (b) cultural predispositions and organizational dynamics. The necessity to understand the impact of relationships and interdependencies between Projects leads to an introduction to Program Management. Creating, monitoring, and reviewing a Business Case for Program Management is essential to defensibly assessing the viability of a Program and to avoid the sunk cost trap. Portfolio Management receives its raison d'etre from its relationships with the organization's Strategic and Business Plans without which it becomes an insular practice. From Mission/Vision/Value statements, individuals are expected to extract cogent underpinnings of their organizations' strategic orientation and objectives. Classic Portfolio Management competencies in valuation, Risk Management, and Resource Management are discussed. One of the most common practices of prioritizing Projects within a Portfolio is elaborated while a markedly different perspective into Portfolio value maximization is demonstrated through an optimization model of a Portfolio of a diversified Healthcare company. Lastly, the course integrates 3 core operational areas of a PMO – Consulting and Support, Knowledge Management, and Standards Maintenance.

The course concludes with a determination of how to assess the maturity levels of each represented organization in Program & Portfolio Management and PMO.

Course Communications:

Course details, including lecture materials, will be sent to class participants by e-mail.
Hard copies of lecture notes will not be provided in class.
Utilizing the class e-mail system for most course communication reduces paper waste and allows students to make their own decisions on what material to print or access online.

Course Materials:

This class utilizes selected chapters from 2 textbooks as well as 3 case studies:

R.G. Cooper, S.J. Edgett & E.J. Kleinschmidt, *Portfolio Management for New Products,* Perseus, 2001.

C.J. Letavec, *The Program Management Office: Establishing, Managing and Growing the Value of a PMO,* J. Ross Publishing, 2006.

M. Jeffery & J.F. Norton, Kellogg School of Management – *Clothes 'R' Us Point-of-Sale Initiative: Managing IT Programs,* 1-22; 2006.

R. Cooper & M. Jeffery, Kellogg School of Management – *Danaka Corporation: Healthcare Solutions Portfolio Management,* 1-18; 2008.

F.W. McFarlan, M. Keil & J. Hupp, Harvard Business School – *The AtekPC Project Management Office,* 1-15; 2007.

Evaluation and Grading:

Grading for the course is based on:

Participation in weekly Blackboard discussions – 20%; mid-term exam – 30%; final paper – 50%.

Calendar:

Class	Date	Readings Before Class	Material Presented by Instructor	Assignments for Next Session
Module 1	Sep 14	• Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 1	▪ **Course Overview and Expectations** ➢ Integration of lecture notes, assigned readings, and case study materials ➢ Use of Blackboard for class discussions	▪ None
Module 2	Sep 21	• Lecture Notes – I ▪ Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 5	▪ **Introduction to Program & Portfolio Management** ➢ Definitions, competencies for personal and organizational success ▪ **Introduction to Program Management Office (PMO)** ➢ Definitions, models, competencies for organizational success	▪ Blackboard discussion – the clarity and lines of separation between Project, Program, and Portfolio Management in your organization
Module 3	Sep 28	• Lecture Notes – II • Office of Government Commerce – Managing Successful Programmes: Chapters 8,9,10	▪ **Program Management** ➢ Development of a Blueprint, Business Case, and integrated Program Plan ➢ Importance of a disciplined New Product Development (NPD) and Stage Gate Review (SGR) Process	▪ Case Study: Jeffery & Norton – Clothes 'R' Us Point-of-Sale Initiative: Managing IT Programs
Module 4	Oct 5	• Lecture Notes – III ▪ Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 2	▪ **Portfolio Management** ➢ Strategic alignment with Mission, Vision, Values ➢ Interdependence between Strategic, Portfolio, and Business Plans ➢ Concept of a 'balanced' Portfolio	▪ Blackboard discussion – the roles and responsibilities of Strategic, Portfolio, and Business planning in your organization
Module 5	Oct 12	• Lecture Notes – IV • Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 3	▪ **Risk Analysis** ➢ Delineation and management of controllable and uncontrollable risks ➢ Risk analysis and quantification ➢ Use of Tree Plan software to construct Decision Trees for complex, multi-phase Projects and Programs	▪ Blackboard discussion – use of Tree Plan to build Decision Trees and calculate Expected Monetary Value
Module 6	Oct 19	• Lecture Notes – V	▪ **Integrated Valuation** ➢ Use of a Strategy Table and Decision Tree to create options for Project and Program development ➢ Valuation incorporating technical risk and commercial uncertainty ➢ Program and Portfolio valuation metrics	▪ **Prepare for mid-term exam** – Case Study analysis

Module 7	Oct 26	▪ Lecture Notes – VI ▪ Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 10	▪ **Project Prioritization** ➢ Fundamentals of Project prioritization using Multiple Objective Decision Analysis (MODA)	▪ Blackboard discussion – use of Excel to build a MODA model that enables Project prioritization in your organization
Module 8	Nov 2	▪ Lecture Notes – VII ▪ Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 10	▪ **Portfolio Optimization** ➢ Fundamentals of Portfolio optimization using deterministic programming	▪ Cooper & Jeffery – Danaka Corporation: Healthcare Solutions Portfolio Management
Module 9	Nov 9	▪ Lecture Notes – VIII	▪ **Resource Management** ➢ Categorization of Projects and Programs into non-discretionary and discretionary buckets ➢ Allocation of fungible and non-fungible resources on low- and high-risk Projects within a Program & Portfolio	▪ Blackboard discussion – generate categories of Must Do, Won't Do, and May Do Projects and compare with your list of prioritized Projects from Module 7
Module 10	Nov 16	▪ Lecture Notes – IX ▪ Cooper, Edgett & Kleinschmidt – Portfolio Management For New Products: Chapter 11	▪ **Organizational Dynamics** ➢ Overcoming organizational barriers to successfully implementing Program & Portfolio Management ➢ Creating a Blueprint for sustainable success	▪ Blackboard Discussion – pros and cons of the optimal home for a Portfolio Management function
Module 11	Nov 23	▪ Lecture Notes – X ▪ Letavec – The Program Management Office: Chapter A	▪ **PMO – Core Operational Area I: Standards Maintenance function** ➢ Administrative support ➢ Project & process consulting, mentoring, and Center Of Expertise across the PMO continuum	▪ Blackboard discussion – articulate distinctions between a Project, Program, and Portfolio Management Office
Module 12	Nov 30	▪ Lecture Notes – XI ▪ Letavec – The Program Management Office: Chapter A	▪ **PMO – Core Operational Area II: Knowledge Management function** ➢ Acquisition, organization, maintenance, knowledge dissemination, and education & training across the PMO continuum	▪ McFarlan, Keil & Huff – AtekPC Project Management Office
Module 13	Dec 7	• Lecture Notes – XII • Letavec – The Program Management Office: Chapter A	▪ **PMO – Core Operational Area III: Consulting & Support function** ➢ Establishment and maintenance of standards, processes, tools & techniques across the PMO continuum	▪ Blackboard discussion – pros and cons of the optimal home for a Program Management Office function

Module 14	Dec 14	▪ Lecture Notes – XIII	▪ **Course Review** ➢ Assessment of organizational Capability Maturity levels in Program & Portfolio Management, and PMO	▪ **Final term paper** – Conduct a detailed SWOT analysis of (a) Program & Portfolio Management as well as (b) the PMO within your organization and provide a prescription for change and implementation to attain a higher Capability Maturity Level

Class Conduct: Students are expected to arrive on time to class. In the event of a planned absence, a note should be sent to my attention with adequate forewarning. Students are expected to be respectful of others' opinions to allow for constructive in-class discussion and debate.

General:

Readings and Assignments: Preparation for each class includes readings from selected texts, case studies, and materials handed out before class.

Case discussions: In addition to text-based lectures, your instructor will discuss applications of several processes, methodologies, and tools to Program & Portfolio Management and the PMO from his own experience.

Final Exam

TBD.