

UNENE
McMaster University/ The University of Western Ontario
FACULTY OF ENGINEERING

EP 704
PROJECT MANAGEMENT FOR NUCLEAR ENGINEERS

COURSE OUTLINE –FALL 2004
Version 2K4-XI-08

OBJECTIVES:

Project Management is emerging as perhaps the key core competency in engineering in the 21st century industrial workplace. This course in Project Management will prepare nuclear engineers in the application of this discipline in their work. It is an intensive investigation into the major principles of Project Management slanted towards, but not exclusively about, the management of nuclear engineering projects. The course uses the Project Management Institute's PMBOK (Project Management Body of Knowledge) as a skeleton and expands that coverage with relevant examples from nuclear, software and general engineering. Special emphasis will be placed on Risk Management, particularly in the area of safety-critical projects. The graduate will be well-positioned both to apply the knowledge in their area of engineering and to sit the PMI's PMP examination. The course will be taught by a professional engineer holding the PMP certification, using many case studies from industry and engineering.

PREREQUISITES: Working knowledge of engineering design processes

COREQUISITES: Enrollment in UNENE

TOPICS:

- Unit 1 Introduction
- Unit 2 The Engineering Project Management Context
- Unit 3 Project Management Processes
- Unit 4 Project Integration Management
- Unit 5 Project Scope Management
- Unit 6 Project Cost Management
- Unit 7 Project Time Management
- Unit 8 Project Quality Management
- Unit 9 Project Human Resource Management
- Unit 10 Project Communications Management
- Unit 11 Project Risk Management
- Unit 12 Project Procurement Management
- Unit 13 Wrapup

TEXTBOOKS:

H. Kerzner, Project Management, 8th Edition, John Wiley & Sons, ISBN 0-471-39342-8
 Course overheads
 PMBOK

SPECIFIC LEARNING OBJECTIVE

The PMI PMBOK Process
 The SPMP (IEEE 1058-1998) and its Allies
 The Role of the Project Manager
 Canonical Project Sub Plans
 Metrics: for the Project; for the Process, for the Product
 Project Management Information Systems
 Costing Projects
 Guaranteeing Project Quality
 Advanced Risk Management
 People Management

CLASS TIMES

All classes will start at 09:00 and end by 16:00. If you cannot make any class, please get the overheads and check with a team member for any assignments.

- Intro Class Sat Nov 05
- Units 1,2,3 Sat Nov 13
- Units 4,5 Sat Nov 20
- Units 6-9 Sat/Sun Dec 04-05
- Units 10-13 Sat/Sun Dec 18-19

EVALUATION:

There will be several assignments, a final project plan and a final Internet exam. The weights will be 20,30 and 50% respectively. You will have to spend 6-10 hours per week out of class to master the material. The Big Project will be done in teams of 4 (+ or- 1). Please see me if this presents a problem.

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