New Jersey Institute of Technology

Digital Commons @ NJIT

Mechanical and Industrial Engineering Syllabi

NJIT Syllabi

Fall 2024

EM 636-853: Project Management

Deoraj Naraine

Follow this and additional works at: https://digitalcommons.njit.edu/mie-syllabi

Recommended Citation

Naraine, Deoraj, "EM 636-853: Project Management" (2024). *Mechanical and Industrial Engineering Syllabi*. 558.

https://digitalcommons.njit.edu/mie-syllabi/558

This Syllabus is brought to you for free and open access by the NJIT Syllabi at Digital Commons @ NJIT. It has been accepted for inclusion in Mechanical and Industrial Engineering Syllabi by an authorized administrator of Digital Commons @ NJIT. For more information, please contact digitalcommons@njit.edu.



SYLLABUS EM 636 : Project Management

Instructor: Deoraj Naraine

Office: N/A Email: dn25@njit.edu

COURSE DESCRIPTION

This is a graduate course offers an overview of some important topics in project management. The course focuses on project management tools and skill as noted below. The topics covered in the course are considered in the context of project management and PMBOK application.

Learning Objectives:

- 1. Understand how to properly plan a project
- 2. Know what all the different parts of a project plan are (it's more than a schedule!)
- 3. Know what type of information is included in each subsidiary plan of the overall project plan
- 4. Understand the importance of a Work Breakdown Structure and be able to create one
- 5. Know how to calculate the critical path of a project schedule and understand what it is and why it is important
- 6. Be able to use different types of estimation techniques
- 7. Know what it means to baseline a project
- 8. Understand why baselining is important and how it is used as you execute a project
- 9. Understand the importance of a formal change control process and how to implement it
- 10. Be able to apply the soft skills of project management such as conflict management, communications, motivation
- 11. Gain experience in working in and managing teams
- 12. Know how to analyze and manage project risks
- 13. Know various techniques for measuring project performance
- 14. Know how to apply the various quality control tools
- 15. Be familiar with the different types of contracts and how to calculate contract prices based on incentive fees
- 16. Know how to formally close-out a project

WEEKLY ASSIGNMENTS

Homework:

Assignments will be subjectively graded based on how well students can show comprehension of the material. I try not to grade anyone lower than a 50% on homework, as it should be a learning experience. Nevertheless, you are expected to demonstrate effort and knowledge of the concepts as applied to a project. It is important to not just read the assignment, but to listen carefully to the lecture slides, especially the examples given, when creating your homework assignments. I do not grade on "presentation" so you don't need to spend time using decorative formats or

anything. Just concentrate on accuracy and clarity. Homework assignments are not exams, meaning you can always ask me questions. In fact, I encourage you to ask me questions as you work on it to make sure you are on the right track.

Whether it is a homework assignment, a quiz, or an exam, you are always expected to abide by the Academic Integrity Code. That means not using other people's work on homework assignments, and not collaborating or sharing questions and/or answers on quizzes or exams. Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf (Links to an external site.).

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing, or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

You will be asked to verify your adherence to the Academic Integrity Code in the Introduce Yourself Discussion Question.

GRADING

Semester Grading:

- 40%: Average of all your homework assignments
 - o 10% HW 1 Summary for chapter 1 to 6
 - o 10% HW 2 Summary for chapter 7 to 12
 - o 10% HW 3 Summary for chapter 13 to 17
 - o 10% HW 4 Summary for chapter 18 to 21
- 60%: Term Project
 - Student are required to independently develop a project that encompasses all aspects
 of the project development lifecycle from cradle to grave. Two components of the
 term project; a written report that document all the project work, and a PowerPoint
 file to present w/ recording overlay.

Subject topic can be any project of your choosing.

I also do not believe in "extra credit." If you need a particular grade to maintain a scholarship or other reason, then you need to put in the effort to ensure that is the grade you earn. Asking for extra credit at the end of the semester to bring up your grade is not the way to do it. It is unfair to the rest of the class.

MINIMUM ACCEPTABLE FORMATS: All assignments should be completed in MS Word, PDF or equivalent. Camera images of handwritten pages are NOT acceptable and will NOT be graded.

Week	End	Topic	Assignment Due
1	Jan 19	Overview of Project Management – Ch. 1	Bio PPT
2	Jan 26	Project Management Growth: Concepts and Definitions - Ch. 2	
3	Feb 2	Organizational Structures / Organizing & Staffing Project Team – Ch. 3/4	
4	Feb 9	Management Functions / Communications Mgmt. – Ch. 5/6	HW 1 Fri
5	Feb 16	Conflicts / Special Topics – Ch. 7/8	
6	Feb 23	Variables for Success / Working with Executives – Ch. 9/10	
7	Mar 1	Planning / Network Scheduling Techniques - Ch. 11/12	HW 2 Fri
8	Mar 8	Pricing and Estimating / Cost Control - Ch. 13/14	
9	Mar 10-16	SPRING Break	
10	Mar 22	Metrics / Trade-off Analysis in Projects – Ch. 15/16	
11	Mar 29	Risk Management / Learning Curves - Ch. 17/18	HW 3 Fri
12	Apr 5	Contract Management - Ch. 19	
13	Apr 12	Quality Management/ Modern Developments in Projects - Ch. 20/21	HW 4 Fri
14	Apr 26	Term Project Due	Last Day of Class
15	May 11	Final Grades	