

Course Syllabus

GETTING STARTED

You will need Microsoft Project for your assignments. Any version is acceptable.

You will also need Microsoft Excel to use the course template.

LEARNING OBJECTIVES:

You will learn advanced scheduling and analysis techniques in Microsoft Project. You will learn how to:

- Model tradeoffs for budget, duration and scope
- Analyze the project for slack and delay, finishing as soon as possible
- Evaluate resource utilization and shift work to under-utilized resources
- Track project status and perform earned value analysis
- Create and track a portfolio of projects based on their priority.

You will receive feedback and coaching from your instructor at every step.

COURSE PROCESS & GRADING:

Each of the modules in the course has a reading assignment in your textbook(s), a video lecture and an assignment, which you complete and send to your instructor via e-mail. To pass the course you must earn a grade of 80% on all course assignments. Your instructor will ask you to revise any assignments that are below the 80% level.

There is a 60 minute final exam at the end of the course. To earn PMI (Project Management Institute) PDUs (Professional Development Units) for this course, your final exam must be proctored by an organizational superior or a licensed professional, such as an attorney or certified public accountant.

TIME REQUIREMENT:

You have one year to complete the course, which will require approximately 40 hours of effort including the reading, lectures, software assignments and final exam.

TEXTBOOKS:

Advanced Project Management Techniques eBook, by Dick Billows, PMP

Program & Portfolio Management eBook, by Dick Billows, PMP

Assignments

MODULE 1 – ADVANCED OPTIMIZATION & TRADEOFFS

1. Reading: Read Chapters 6 and 7 in your *Advanced Project Management Techniques* textbook. (While it is not required, you may want to read the first 5 chapters to get a better understanding of the project discussed in Chapters 6 & 7.)
2. Lecture: Watch the Module 1 lectures on Achievement Tradeoffs, Budget Tradeoffs, Duration Tradeoffs, Fine Tuning, Resource Utilization, and Slack & Delay on the course website.
3. Assignment: Using your approved project schedule from Module #3 in course #205, apply the advanced optimization techniques to the project schedule and send it to your instructor for review. With your feedback, your instructor will send you 3 change requests for your project.
4. Using tabs #1-3 in your course template - Change Request 1, Change Request 2, and Change Request 3, develop a change control analysis for each of the requests your instructor sent you.
5. Send your change request analysis in the template along with the MS® Project schedules you created to quantify and model the impact of each change. Your instructor will send you feedback and coaching with the status reports for your next assignment.

MODULE 2 – ADVANCED TRACKING & EARNED VALUE

1. Reading: Read chapter 8 in your *Advanced Project Management Techniques* textbook.
2. Lecture: Watch the Module #2 lecture on the course website.
3. Assignment: Use the status reports your instructor sent you with your feedback on your last assignment and enter the actual results into your schedule. Analyze the situation and identify the problems you face. Use earned value and variance data analysis to document the consequences. Develop plans for corrective action in the course template tab #4, labeled Status Report. Use the software to model the requirements, costs, additional resources and schedule impact of the corrective action. Model 3 alternative recovery strategies with separate project schedules for reducing the Scope, duration and cost for the project.
4. Send the completed template and Microsoft Project® files to your instructor for review and feedback.

MODULE 3 – PORTFOLIO MANAGEMENT

1. Assignment: Build 3-7 Microsoft Project® files. Using the skills you learned in Course #205, build the Work Breakdown Structure, the predecessor network, add resources with work estimates, and then do a final optimization of each schedule. Note: You cannot simply use MS® Project files from work unless the deliverables are properly defined, with

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predecessors, no fixed dates, and resources and work estimates. For the consolidation of the projects into one portfolio, the schedules must be built using the fundamentals you learned in Course #205. Send the files to your instructor for feedback and coaching. After your projects are approved by your instructor complete the next steps:

2. Reading: Read Chapter 6 in the *Program and Portfolio Management* e-book.
3. Lecture: Watch the Module #3 lecture on the course website.
4. Assignment continued: Set up your portfolio as detailed in the software video instructions. The course website also has a .pdf you can download with click-by-click instructions.
 - a. Link the projects to the resource pool.
 - b. Run the consolidation letting the software allocate resources based on priorities.
 - c. Look at the scheduled dates for the projects compared to the planned completion dates.
5. Send the files to your instructor for feedback and coaching.

FINAL EXAM

1. E-mail your instructor with the day and time you'd like to take your online final exam. The test is 10 short essay questions. It is open book and open notes with a 60-minute time limit. If you want to earn the professional development units (PDUs) from the Project Management Institute (PMI), it must be proctored by your boss or an independent professional like an attorney or accountant.