

# U. S. DEPARTMENT OF ENERGY

Office of Engineering and  
Construction Management



Project Management Career  
Development Program

*Training Course Catalog*

*March 2011*

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# PMCDP Curriculum Learning Map – effective January 2011

**Key**  
 # days/number of PDUs certified  
 -- = course not PMI® certified  
**CHRIS Codes in bold** = recommended sequence  
 Blue lines → These classes are waived if PMP® certified

**Level 4**

### Level 4 Core Course

Executive Communications  
 3 days/-  
**001031**

Strategic Planning  
 3 days/-  
**001043**

### Level 4 Electives — Select One

Advanced Leadership  
 5 days/35  
**001041**

**Level 3**

### Level 3 Core Courses

Advanced Risk Management  
 3.5 days/25  
**001042**

Program Management and Portfolio Analysis  
 5 days/35  
**001025**

### Level 3 Electives — Select one from Group A and one from Group B

#### Group A

Project Execution and Readiness Reviews  
 3 days/21  
**001039**

Systems Engineering  
 3 days/-  
**001049**

#### Group B

Labor Management Relations  
 3 days/-  
**001038**

Facilitating Conflict Resolution  
 3 days/-  
**001558**

Negotiation Strategies and Techniques  
 3 days/-  
**001047**

**Level 2**

### Level 2 Core Courses

Project Leadership/Supervision  
 3 days/22.5  
**001045**

Effective Program and Project Communication  
 2 Days/14  
**001940**

Project Management Simulation  
 5 days/35  
**001029**

### Level 2 Electives — Select Two

Value Management  
 3 days/21  
**001037**

Federal Budgeting Process in DOE  
 4 days/28  
**001034**

Advanced Concepts in Project Management  
 Blended Learning/50  
**001023**

Scope Management Baseline Development  
 3 days/21  
**001036**

Cost and Schedule Estimation and Analysis  
 5 days/35  
**001044**

Real Property Asset Management  
 3 days/21  
**001183**

Environmental Laws and Regulations  
 3 days/-  
**001046**

**Level 1**

### Level 1 Core Courses

Acquisition Management for Technical Personnel  
 4.5 Days/32  
**000145**

\*Performance-Based Management Contracting  
 3 days/21  
**001951**

\*Earned Value Management Systems  
 3 days/21  
**001026**

Contract Admin. for Technical Representatives  
 3 days/21  
**001028**

### Level 1 Electives — Select One

LEED for New Construction and Existing Buildings  
 2.5 days/18  
**001936**

Capital Planning for DOE O 413.3B Capital Asset Projects  
 2 days/-  
**002152**

\*Project Management Essentials  
 Blended Learning/70  
**001022**

Project Management Systems and Practices in DOE  
 Blended Learning/60  
**001024**

Project Risk Analysis and Management  
 3.5 days/25  
**001033**

Planning for Safety in Project Management  
 3.5 days/25  
**001035**

## INTRODUCTION

The Department of Energy (DOE) Project Management Career Development Program (PMCDP) is a Department-wide program establishing criteria and standards for developing and certifying DOE's Federal Project Directors and educating those in associated project management functions.

The Office of Engineering and Construction Management (OECM) has overall responsibility for developing and overseeing the PMCDP certification program. The mandatory facets of the PMCDP are institutionalized in DOE Order 361.1B, *Acquisition Career Development Program, Chapter IV*.

The *DOE Competency and Equivalency Guide* establishes the competency requirements. Eleven essential domains of Knowledge, Skills and Abilities (KSA) have been identified. The PMCDP courses have been designed to link to the specific sets of KSAs identified as essential for a project director.

**Training Courses.** PMCDP training combines existing courses from the DOE and other federal agencies, available off-the-shelf training materials, and custom designed courses. Training is provided through a combination of interactive media, video conferencing, computer simulation, and classroom experiences. For a detailed course schedule and for more information on the PMCDP, see the OECM website:

[www.management.energy.gov/project\\_management/pmcdp\\_home.htm](http://www.management.energy.gov/project_management/pmcdp_home.htm)

**Continuous Learning.** Each certified project director is required to successfully complete 60 hours of continuing education (CE) biennially to maintain certification. In addition to the subject and activity areas listed in DOE Order 361.1B, Chapter IV, the Director of OECM or his/her designee will approve CE credits related to the management of highly technical DOE projects. These subject areas may include such topics as, but not limited to: accounting, applied mathematics and statistics, engineering, project management, physical sciences, hazardous material management, environmental management, maintenance management, and logistics. See the PMCDP Certification and Equivalency Guide, or the PMCDP website for the current PMCDP CE credit hour assignment table.



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## Level One: Core

### Project Management Essentials

This blended learning course addresses specific project management issues relating to the Department of Energy. It will cover the primary concepts of project management and introduce best practices in project management from DOE, other Federal agencies, and the private sector. The course focuses on five major aspects of project management: Pre-Project Planning; Strategic Management and Budgeting; Project Planning (Cost, Schedule, Risk Management); Team-building and Leadership; and finally, Project Execution (Earned Value, Project Reviews, Change Configuration Management).

**Objective:** It will cover the primary concepts of project management at an intermediate level of expertise, and introduce best practices in project management from DOE, other Federal agencies, and the private sector.

**Audience:** Federal Project Directors with at least three years experience in project management who currently work in a project management position and for personnel involved directly or indirectly in a wide variety of DOE projects or activities related to program/project management or contract management.

**Length:** Eight weeks

**Method of Delivery:** Eleven two-hour televideo conference sessions and one instructor-led three-day resident seminar.

**Course Notes:**

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001022

**PMCDP Certification**

**Continuing Education Hours:** 70

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0007

**Professional Development Units:** 70

### Project Management Systems and Practices in DOE

This blended learning course addresses specific project management issues focusing primarily on the critical decision process promulgated in DOE Capital Assets directives (emphasis on DOE O 413.3B). Other topics include: working Knowledge of DOE FPD roles and responsibilities, project management ethics; understanding DOE HQ-field relationships and Lead Program Secretarial Officers (LPSO's).

**Objective:** Provide participants a detailed knowledge of the critical decision process required by DOE Capital Assets directives, and articulate how that process interfaces with the budget process, project schedule, and key elements of project management at DOE.

**Audience:** Federal Project Directors with at least three years experience in project management who currently work in a project management position on a project with a total project cost (TPC) of at least 5 to 20 million dollars. This course will be relevant for personnel involved directly or indirectly in a wide variety of DOE projects or activities related to program/project management or contract management.

**Length:** Seven weeks

**Method of Delivery:** Seven two-hour televideo conference sessions and one instructor-led three-day resident seminar.

**Course Notes:**

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score

**CHRIS Code:** 001024

**PMCDP Certification**

**Continuing Education Hours:** 60

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0008

**Professional Development Units:** 60

## Level One: Core

### Planning for Safety in Project Management

This course is designed to enhance the DOE Federal Project Director's ability to determine the importance of safety to projects and DOE's image and viability. The course will help the FPD determine their role in safety throughout the Critical Decision (CD) process. Using a case study, this process will examine nuclear, environmental, and worker safety issues in a representative project.

**Objective:** The main objective of this course is to emphasize that safety is central to every project even if it is not central to the mission. It will help prepare the participant to effectively apply safety management requirements throughout the project acquisition life cycle. Particular emphasis is given to the planning and design phases where application of a Failure Mode and Effects Analysis should identify potential hazards and mitigation strategies.

**Audience:** Federal Project Directors; perspective Federal Project Directors and integrated project team members.

**Length:** 3.5 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001035

#### PMCDP Certification

**Continuing Education Hours:** 25

#### Project Management Institute Certification

**DOE Course PMI Number:** 2241-PM0023

**Professional Development Units:** 25

### Project Risk Analysis and Management

This course is designed to prepare DOE project managers to: determine project risks and develop risk management and mitigation strategies; determine at which points in a project life cycle Risk Analyses should be performed; evaluate potential risk probability and consequences, determine risk factors, select risk management or mitigation strategies, and develop a risk management plan.

**Objective:** Participants will acquire the skills that will enable them to assign risk responsibility between DOE and contractors; determine appropriate project cost and schedule contingencies for identified risks; determine appropriate project management and controls tools to assist in managing identified risks; and evaluate project Estimates at Completion (EAC) and remaining contingencies to determine adequacy of funds.

**Audience:** Level 1 or higher Federal Project Directors, integrated project team members, and prospective Project Directors. Attendees of this course should have at least five years experience in project management and should currently be in a project management position on a project with a total project cost (TPC) of at least 5 to 20 million dollars.

**Length:** 3.5 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001033

#### PMCDP Certification

**Continuing Education Hours:** 25

#### Project Management Institute Certification

**DOE Course PMI Number:** 2241-PM0031

**Professional Development Units:** 25



## Level One: Core

### Acquisition Management for Technical Personnel

Because of the Federal Government's special fiduciary relationship, the acquisition system established to manage government expenditures of taxpayer monies is very different from commercial transactions between private parties. The principal purpose of the DOE acquisition system is to deliver on a timely basis the best value product or service to the customer while adhering to the laws, regulations, policies, and directives of the United States Government and the Department. This course will examine the portion of the acquisition process commonly referred to as "procurement." This part of the process typically begins with the completion of the acquisition strategy and the development of the acquisition plan. The process proceeds through development of a solicitation, solicitation and evaluation of proposals, and contract award.

**Objective:** Provide DOE employees with a solid foundation in the processes and applications of acquisition activities that happen before a contract is awarded.

**Audience:** Project and program personnel and other DOE employees involved in general procurement requests and/or source selection activities.

**Length:** 4.5 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 000145

**PMCDP Certification**

**Continuing Education Hours:** 32

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0028

**Professional Development Units:** 32

### Performance-Based Management Contracting

This course assures that program and project managers understand the need to continue and accelerate this move toward performance based major site and facility contracts. The course also addresses the processes by which these performance based site and facility management contracts are planned, awarded, and managed after award. The overall objective is to focus on major site and facility contracts and to present the performance based concepts and tools required in each aspect of the planning, award, and post award processes for these contracts. Many of the topics covered in this course are also addressed in other DOE courses, most notably "Acquisition for Technical Personnel," and "Contract Administration for Technical personnel." The difference here is the complete focus on major site and facility contracts and the unique challenges involved in making them performance based.

**Objective:** Familiarize participants with the planning, implementation, and management of performance-based contracts for major site facilities.

**Audience:** Federal Project Directors, prospective Project Directors, and integrated project team members.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001951

**PMCDP Certification**

**Continuing Education Hours:** 21

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0027

**Professional Development Units:** 21

## Level One: Core

### Earned Value Management Systems

The course addresses earned value management systems (EVMS) processes and techniques for organizing, planning, and authorizing work; monitoring performance; controlling baseline; presenting the graphical organization, cost, and schedule of the technical baseline in a work breakdown structure (WBS); selecting the appropriate EVMS technique for different WBS elements; and collecting, interpreting, and reporting earned value data.

**Objective:** Prepare participants to develop a working knowledge of EVMS and project reporting requirements and to apply EVMS approaches in project management.

**Audience:** Prospective and current Federal Project Directors. Members of Integrated Project Teams (IPTs) who currently work in a project management position.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001026

#### PMCDP Certification

**Continuing Education Hours:** 21

#### Project Management Institute Certification

**COTS Course PMI Number:** 1151-D3EVMGMT

**Professional Development Units:** 21

### Contract Administration for Technical Representatives

This course is designed for employees who have valuable technical or functional expertise but little formal training in procurement, who need to know what to do when tasked to be Contracting Officer's Representative (COR) on a DOE non-M&O prime contract. Topics include: the Federal acquisition process as it pertains to the COR function; DOE's approach to contract administration; the role of the COR, particularly in relation to the contracting officer and the contractor; the duties of the COR and how to effectively complete assigned responsibilities; and the ethical standards of conduct to which CORs must adhere.

**Objective:** Provide DOE employees tasked to be COR with an overview of COR authority and responsibilities.

**Audience:** Personnel tasked to be CORs who may not necessarily have formal training in procurement.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001028

#### PMCDP Certification

**Continuing Education Hours:** 21

#### Project Management Institute Certification

**DOE Course PMI Number:** 2241-PM0004

**Professional Development Units:** 21

## Level One: Electives

### LEED for New Construction and Existing Buildings

The LEED Implementation Process is a 2.5-day course designed to provide participants with the knowledge to make existing buildings and new construction environmentally sound. This course supports the mandate of the Secretary of Energy who has directed that all projects meet the Leadership in Energy and Environmental Design (LEED) Green Building Rating System green initiative goal standards. The course walks participants through the phases of a typical project, using case examples and implementation strategies throughout to reinforce learning and encourage participants to apply knowledge to real-life situations. Topics covered include climate change and building impacts, motivators for green building, the history of the “green building” movement, the development of the USGBC, the development of LEED, and the five categories of LEED.

**Objective:** The course will provide participants with a working level knowledge of the process involved to ensure that existing buildings and new construction meet the LEED standards.

**Audience:** Prospective and current Federal Project Directors. All personnel involved with managing building maintenance and new construction.

**Length:** 2.5 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001936

**PMCDP Certification**

**Continuing Education Hours:** 18

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0029

**Professional Development Units:** 18

### Capital Planning for DOE O 413.3B Capital Asset Projects

Participants will review capital planning questions they should ask when a non-information technology capital asset project under the DOE O 413.3B, herein referred to capital asset project, is in each phase of the projects acquisition. The course will review the documents and reports from the budget formulation and acquisition planning processes that can be used to support the DOE's budget submissions to the Office of Management and Budget (OMB). This course tracks the critical decision deliverables, reports, cyclical budget data and narratives in the context of a structured capital planning process and the critical decision model for capital asset projects.

**Objective:** Participants will review capital planning questions they should ask when a non-information technology capital asset project under the DOE O 413.3B, herein referred to capital asset project, is in each phase of the projects acquisition. The course will review the documents and reports from the budget formulation and acquisition planning processes that can be used to support the DOE's budget submissions to the Office of Management and Budget (OMB). This course tracks the critical decision deliverables, reports, cyclical budget data and narratives in the context of a structured capital planning process and the critical decision model for capital asset projects.

**Audience:** This course is primarily designed for current and prospective DOE Federal Project Directors.

**Length:** 2 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 1 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 002152

**PMCDP Certification**

**Continuing Education Hours:** 14

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## Level Two: Core

### Advanced Concepts in Project Management

This blended learning course focuses on nine major aspects of project management: Systems Engineering; Value Management; Integrated Safety Management; Quality Planning Assurance and Control; Pre-Project Planning; Project Objectives and Logic; Project Scheduling Under Uncertainty; Critical Chain and Resource Buffers; Process Control; Project Scheduling Under Uncertainty; Critical Chain and Resource Buffers and; Process Control. In addition to these topics, the course will address specific individual, team and organizational competencies, project leadership skills, and introduce the concept of Technology Readiness Assessments.

**Objective:** Enable participants to apply their Level 1 project management knowledge in an extended research project and introduce a variety of selected topics pertaining to project management processes.

**Audience:** Level 2 Federal Project Directors; integrated project team members, and prospective Project Directors.

**Length:** Five weeks

**Method of Delivery:** Eight two-hour televideo conference sessions and one instructor-led three-day resident seminar.

**Course Notes:**

1. This course is required for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001023

**PMCDP Certification**

**Continuing Education Hours:** 50

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0012

**Professional Development Units:** 50

### Scope Management/Baseline Development

The course covers a range of project management issues specific to the competency needs of a Level 2 Project Manager. The objective of this course is to prepare participants to conduct effective requirements planning sessions and to be able to control scope and configuration changes throughout the life cycle of the project. The course will emphasize Work Breakdown Structure (WBS) development. Some topic areas include baseline development techniques, identifying risk and constraints for requirements, prioritizing requirements, tradeoff analysis, iterative requirements management, and scope change/configuration management.

**Objective:** This course is designed to enhance the DOE Federal Project Directors' ability to clearly define requirements and scope, develop a defensible baseline, and manage conformance to the baseline throughout the project life-cycle.

**Audience:** Level 2 or higher Federal Project Directors, integrated project team members, and prospective Project Directors.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is required for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001036

**PMCDP Certification**

**Continuing Education Hours:** 21

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0014

**Professional Development Units:** 21

## Level Two: Core

### Cost and Schedule Estimation and Analysis

This course will provide participants with a high-level overview of cost and schedule estimation techniques necessary for successful project management. Participants will receive practical skills training on how to develop independent cost and schedule estimates and how such estimates factor into a project's baseline. Course topics include: identifying cost and schedule estimates; basic estimating methods; group analysis techniques; applying life-cycle costing techniques, validating estimates, determining critical path schedule for a project; crashing and fast-tracking methods; and the relationship between budget authorization (BA) and budget outlay (BO) schedules, project estimates, and the project funding profile.

**Objective:** Enable participants to learn the skills used across the project life cycle, focusing on estimates developed in project planning and the early stages of project execution (preliminary design).

**Audience:** Level 2 Federal Project Directors; integrated project team members, and prospective project directors. Attendees of this course should have at least five years experience in project management and should currently be in a project management position on a project with a total project cost (TPC) of at least 5 to 20 million dollars.

**Length:** 5 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001044

#### PMCDP Certification

**Continuing Education Hours:** 35

#### Project Management Institute Certification

**DOE Course PMI Number:** 2241-PM0015

**Professional Development Units:** 35

### Project Leadership/Supervision

This course is designed to stimulate long-term project management leadership growth, through understanding leadership principles and styles; identifying individual strengths and weaknesses; developing supervision and motivation techniques; building integrated project teams; and organizing and motivating team members. Course topics include: strengths and weaknesses of different leadership styles; ethical and unethical leader behavior; motivational strategies; IPTs; project goals and vision; achieving consensus; and developing confidence and trust within the project team.

**Objective:** The objective of this course is to develop a working-level knowledge of leadership principles, supervision and motivation techniques, conflict resolution techniques; and integrated project teambuilding skills in a project environment.

**Audience:** Level 2 or higher Federal Project Directors, integrated project team members, prospective Project Directors, and other aspiring DOE leaders.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001045

#### PMCDP Certification

**Continuing Education Hours:** 22.5

#### Project Management Institute Certification

**DOE Course PMI Number:** 2241-PM0011

**Professional Development Units:** 22.5

## Level Two: Core

### Effective Program and Project Communication

Communication skills are critical to program and project success. Successful project managers have good communication skills that include being able to effectively present issues, listen and act on feedback, and foster harmony among team members. By understanding the sender/receiver model, communication skills can be tuned to help ensure that our projects succeed. Communication can be planned and executed just like any other project management activity. Project managers have a range of communication mechanisms and media at their disposal. This course will help FPDs to choose the right mechanism and/or medium for their messages. After completing this course, participants will be able to: describe the sender-receiver model and its importance to project and program communications; know about, plan for, and use the communication mechanisms and media to deliver their messages; strengthen their skills for making and delivering presentations; write emails and deliver information throughout the organization at every level.

**Objective:** The overall objective is to prepare participants to effectively communicate within and across DOE projects.

**Audience:** Prospective and current Federal Project Directors, integrated project team members, and other DOE personnel wishing to improve their communication skills.

**Length:** 2 days

**Method of Delivery:** Instructor-led classroom; workshop

**Course Notes:**

1. This course is required for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001940

**PMCDP Certification**

**Continuing Education Hours:** 14

### Project Management Simulation

This computer-based project management simulation enables participants to exercise and integrate a wide variety of project management skills, including developing defensible project plans; applying PM tools and techniques to plan, track, and control projects; improving project team performance; analyzing project information; identifying complex project tradeoff decisions; and recognizing when to focus on task and when to focus on process.

**Objective:** Provide participants the opportunity to apply project management knowledge in an automated project simulation.

**Audience:** Level 2 or higher Federal Project Directors, integrated project team members, and prospective Project Directors.

**Length:** 5 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is required for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001029

**PMCDP Certification**

**Continuing Education Hours:** 35

**Project Management Institute Certification**

**COTS Course PMI Number:** 1071-MW28PL

**Professional Development Units:** 35

## Level Two: Electives

### Environmental Laws and Regulations

This course will train DOE personnel in the details of the major environmental requirements in order to ensure they are knowledgeable about their responsibilities for environmental protection and compliance, and to assist them in carrying out these responsibilities. Upon completion of the training, all participants should be able to describe the intent of the major Federal environmental laws, Executive Orders, and regulations and understand the detailed processes involved in implementation of major environmental requirements by the Department of Energy.

**Objective:** Provide participants an understanding of the environmental laws and regulations so that they are aware and knowledgeable of their environmental responsibilities as Federal Project Directors.

**Audience:** Level 2 Federal Project Directors; integrated project team members, prospective Project Directors, or any DOE employee with an interest in a basic introduction to environmental requirements as they apply to DOE's project life-cycle.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001046

**PMCDP Certification**

**Continuing Education Hours:** 21

### Federal Budgeting Process in DOE

This course provides participants with an overview of the major phases and participation in the federal budget process. Participants will learn how the federal budget process can impact the role of the project director and how to best deal with the impacts through contingency planning. Participants will gain an understanding, up to macro level, how the budget is formulated; recognize the impact of the Government Performance and Results Act (GPRA); and major phases and timing in the budget process. It emphasizes program and project managers' effective use of these financial systems and processes to accomplish DOE's mission.

**Objective:** This course is designed to provide program and project managers a working knowledge of DOE's financial and managerial systems to accomplish the Department's budgeting and accounting processes.

**Audience:** Level 2 Federal Project Directors; integrated project team members, and prospective Project Directors.

**Length:** 4 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001034

**PMCDP Certification**

**Continuing Education Hours:** 28

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0003

**Professional Development Units:** 28



## Level Two: Electives

### Real Property Asset Management

Real Property Asset Management (RPAM) is a three-day course focusing on the requirements of DOE Order 430.1B, Real Property Asset Management. In the course you will learn a systematic, integrated approach to the management of federal real property. The course addresses real property planning and management, Ten Year Site Plans, real property status reporting requirements and mechanisms, value engineering, performance management and DOE and contractor role and responsibilities for real property asset management. Also included in the course are the requirements contained in the Executive Order, Federal Real Property Asset Management (EO 13327 - 69 r. Reg. 589, February 4, 2004) which places greater visibility on management of real property assets.

**Objective:** The objective is to establish a corporate, holistic, and performance-based approach to real property life-cycle asset management that links real property asset planning, programming, budgeting, and evaluation to program mission projections and performance outcomes.

**Audience:** Individuals involved with the planning, acquisition, maintenance and recapitalization, disposal or long-term stewardship of DOE real property lands or facilities.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001183

**PMCDP Certification**

**Continuing Education Hours:** 21

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0025

**Professional Development Units:** 21

### Value Management

With a focus on the value management (VM) process, this course addresses building and leading VM teams; understanding the six-step VM job plan; VM definitions, principles, and concepts; contractual aspects of VM; VM and the project life cycle; and function analysis in the VM process. Please note: Value Management is not Earned Value Management. This is not a course on Earned Value Management Systems (EVMS).

**Objective:** Provide participants with an understanding of the VM process, emphasizing the modern approach to VM and how it can best be applied in the project life cycle to reduce the cost and schedule of DOE projects.

**Audience:** Level 2 or higher Federal Project Directors, integrated project team members, and prospective Project Directors.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 2 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001037

**PMCDP Certification**

**Continuing Education Hours:** 21

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0010

**Professional Development Units:** 21

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## Level Three: Core

### Advanced Risk Management

The course will provide participants with more advanced treatment of risk management principles and concepts. The training will build upon the concepts included in the basic Risk Analysis and Management course and will review topics that are appropriate for Level 3 and 4 Federal Project Directors. The course also addresses representative project risk management software risk analysis tools, and uses two large capital and operating dollar projects to enhance the learning through case study work.

**Objective:** Provide the participant with an advanced understanding of the concepts and applications of risk and opportunity management, within the context of federally managed DOE acquisition projects.

**Audience:** Level 3 and 4 Federal Project Directors, prospective Project Directors, and integrated project team members. Attendees should have already taken the basic Level 2 Risk course.

**Length:** 3.5 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001042

#### PMCDP Certification

**Continuing Education Hours:** 25

#### Project Management Institute Certification

**DOE Course PMI Number:** 2241-PM0030

**Professional Development Units:** 25

### Program Management and Portfolio Analysis

Focusing on collaboration, defending resources, and creative compromise, this automated simulation and case study addresses developing a strategic view of projects, managing priorities among projects, coordinating the information needs of multiple projects across the organization, allocating and managing resources across a project organization, preparing project staff to meet future technical/managerial needs, balancing responsibilities for project and functional management, and applying project management methods in a complex project setting.

**Objective:** Enable participants to gain hands on experience in planning, implementing, and coordinating multiple, complex projects across an organization.

**Audience:** Federal Project Directors, prospective Project Directors, and integrated project team members.

**Length:** 5 days

**Method of Delivery:** Instructor-led classroom

#### Course Notes:

1. This course is required for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001025

#### PMCDP Certification

**Continuing Education Hours:** 35

#### Project Management Institute Certification

**COTS Course PMI Number:** 1071-MW20EW

**Professional Development Units:** 35

## Level Three: Electives (Group A)

### Project Execution and Readiness Reviews

The course teaches skills necessary for successfully managing engineering and design, construction, acceptance and transition, and project closeout. Techniques are taught for organizing, managing, and reviewing project design and documentation, and for overseeing contractor performance during construction. Participants will learn the skills needed to identify potential problems and how to plan to avoid them. Extensive practice is provided in cost and schedule monitoring, including earned-value analysis, trend analysis and forecasting, managing baselines through performance monitoring and change control.

**Objective:** This course is designed to enable Federal Project Directors to successfully complete the project execution phase and ensure that DOE facilities are ready for safe, legal operation prior to transition to contract closeout.

**Audience:** Federal Project Directors, prospective Project Directors, and integrated project team members. Attendees should have at least seven years experience in project management and should currently have a position in a project with a total project cost of at least 100 million dollars.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001039

**PMCDP Certification**

**Continuing Education Hours:** 21

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0020

**Professional Development Units:** 21

### Systems Engineering

Through this course participants will be able to: recognize the steps of the SE process; understand how to apply the basic SE process to large systems (e.g., programs/projects); identify key participants for performing the SE processes; establish a problem and/or mission need statement; identify functions and requirements and interfaces with other systems; understand how to validate requirements; identify and evaluate alternatives or options; and apply risk and opportunity management to SE; verify solutions to meet requirements.

**Objective:** The basis of this course is to emphasize that the implementation of the Systems Engineering (SE) process, from project initiation through the entire life-cycle, can decrease the likelihood of cost overruns, schedule delays and compromises in program and project technical performance.

**Audience:** Federal Project Directors, prospective Project Directors, and integrated project team members.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001049

**PMCDP Certification**

**Continuing Education Hours:** 21

## Level Three: Electives (Group B)

### Facilitating Conflict Resolution

This course will cover a variety of topics specific to the issues of facilitating conflict resolution. Areas discussed include: recognizing potential conflict situations and neutralizing them before they escalate; using problem-solving and decision-making techniques to meet the needs of everyone affected; negotiating "win-win" solutions for all parties involved; minimizing or resolving conflict in groups and between employees using appropriate interpersonal strategies; and understanding and successfully implementing organizational change. The course will include a significant emphasis on the use of facilitation techniques within the conflict resolution process.

**Objective:** Provide participants with an understanding of the issues of facilitation and conflict resolution, including an emphasis on win-win solutions and implementing organizational change.

**Audience:** Level 3 or higher Federal Project Directors and integrated project team members. Attendees should have at least seven years experience in project management and should currently have a position in a project with a total project cost of at least 100 million dollars.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001558

**PMCDP Certification**

**Continuing Education Hours:** 21

### Negotiation Strategies and Techniques

This course addresses collaborative and competitive negotiations, negotiation strategy and planning, negotiations within and between teams, identifying key stakeholder interests in negotiations, determining best alternatives to negotiated agreements, responding to conflict, and creating trust as well as ethics in negotiations, negotiating cost and schedule and steps of the negotiation process.

**Objective:** Provide participants with methods and strategies that improve their performance in negotiating agreements. Attendees will participate in individual and team negotiations in a workshop environment that improves their ability to plan for and conduct negotiations.

**Audience:** Level 3 Federal Project Directors, prospective Project Directors, and integrated project team members.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001047

**PMCDP Certification**

**Continuing Education Hours:** 21

## Level Three: Electives (Group B cont'd)

### Labor Management Relations

Participants in this course will gain knowledge in the basics of labor management relations, labor laws and regulations, implementing bargaining practices, and applying methods for resolving disputes. Techniques and procedures of labor contract administration will be discussed along with preventing unfair labor practices.

**Objective:** Enable participants to gain knowledge about labor management relations and techniques and tools for building good labor management practices.

**Audience:** Level 3 or higher Federal Project Directors and integrated project team members.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 3 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001038

**PMCDP Certification**

**Continuing Education Hours:** 21

## Level Four: Core

### Executive Communications

Using filmed exercises and simulated media events, this highly interactive course addresses championing projects to Congressional leaders, DOE senior managers, and the media; communicating DOE concerns and plans to Congressional offices; delivering Congressional hearing testimony and responding to specific Congressional queries; giving television interviews and reviewing the newspaper articles that result from them; and understanding Congressional organization, leadership structures, and stakeholder concerns.

**Objective:** Prepare participants to interact with senior agency executives, Congress, the media, and the general public.

**Audience:** Level 4 Federal Project Directors, prospective Project Directors, and integrated project team members. The course may be beneficial to other PMCDP participants who interact with senior agency executives, Congress or the general public.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is required for Level 4 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001031

**PMCDP Certification**

**Continuing Education Hours:** 21

## Level Four: Electives

### Advanced Leadership

This course provides participants an opportunity to realistically assess their leadership strengths and needs, develop the communication and relationship-building skills that their professional environment requires, and discover how their personal leadership style aligns with their organization's culture.

**Objective:** Enable participants to develop an advanced understanding of themselves and of their professional environments to succeed in dynamic, high-pressure, high-visibility leadership positions.

**Audience:** Level 4 Federal Project Directors, prospective Project Directors, and integrated project team members.

**Length:** 5 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 4 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001041

**PMCDP Certification**

**Continuing Education Hours:** 35

**Project Management Institute Certification**

**DOE Course PMI Number:** 2241-PM0019

**Professional Development Units:** 35

### Strategic Planning

Participants will be introduced to theories and techniques to improve productivity, formulate and implement a planning process, and make better strategic decisions. They will be shown how to make decisions based on strategic plans that give specific direction yet remain flexible enough to respond to changing conditions.

**Objective:** Provide participants with hands-on knowledge of the strategic planning process and how to formulate and implement strategic plans.

**Audience:** Level 4 Federal Project Directors, prospective Project Directors, and integrated project team members. The course may be beneficial to other PMCDP participants or to DOE staff engaged in strategic planning.

**Length:** 3 days

**Method of Delivery:** Instructor-led classroom

**Course Notes:**

1. This course is an elective for Level 4 certification in the Project Management Career Development Program (PMCDP).
2. To earn course credit, participants must attend ninety-percent of all sessions and complete all course assignments, including successful completion of course exams, and have a minimum of seventy-percent passing score.

**CHRIS Code:** 001043

**PMCDP Certification**

**Continuing Education Hours:** 21



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