

DOE Project Management News

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April 2019 Edition



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Director's Corner



Mike Peek, Director of the Office of Project Management (PM)

Its spring in Washington DC, which means the 2019 Project Management Workshop is just around the corner. The Office of Project Management (PM) will be hosting the Workshop on April 23 - 24, 2019 at the Hilton Washington DC on the National Mall. The workshop continues the tradition of hearing from some of the department's senior leaders, discussing projects and project challenges, and sharing lessons learned and best practices. Also, we will recognize some of our peers for their achievements in project management and delivery with awards for the Federal Project Director of the Year, and project management excellence and achievement.

On the morning of April 25th, our Project Controls community will have an opportunity to get together to discuss improving the integration of project controls with project management. The afternoon of April 25th has been reserved for Program Office breakout sessions (contact your PMSO for info on Program breakout sessions). Workshop Highlights include:

- Day 1 (April 23, 2019) Remarks from the Under Secretary for Nuclear Security; Project Management Institute (PMI) discussion on disruptive technologies; and program perspectives from Environmental Management, Science, and the National Nuclear Security Administration.
- Day 2 (April 24, 2019) Remarks from the Acting Chief Financial Officer, the Assistant Secretary for Congressional and Intergovernmental Affairs, and the Principal Deputy Assistant Secretary for Nuclear Energy; GAO High Risk Update; Construction Economics; Ethics; and presentation of the Project Management Awards.
- Day 3: Project Controls & Program Office Breakout Sessions (April 25, 2019) – Project Management Institute (PMI) EVMS Practice Guide Update; Contractor EVM Self Governance; and an update on a research study on EVMS maturity.

As a side note, registration for the Workshop is over-subscribed (max occupancy) so PM is actively managing a "wait list". If you are wait listed, make sure to monitor your email in-box for updates!

Sincerely,

Míke Peek



Review & Estimate Plans – The Roadmap for a Successful Review Don Chandler, Office of Project Assessments (PM-20)

Department of Energy (DOE) Order 413.3B requires the Office of Project Management (PM) to perform External Independent Reviews (EIR), Independent Cost Estimates (ICE) and Independent Cost Reviews (ICR) prior to specific Critical Decision gates for all capital asset projects falling under DOE Order 413.3B with a Total Project Cost (TPC) greater than or equal to \$100 million. PM views each review like a project in itself. Each has a beginning, an end, and produces a unique product (i.e., EIR report or cost estimate/review report). In preparation to conduct these project reviews, PM follows a variety of best practices and develops review and estimate plans to initiate these "projects."

Who Develops the Review or Estimate Plan?

The PM review or estimate team leader has the responsibility for preparing the review or estimate plan, with input from the federal project director (FPD), which is usually an iterative process. Once the PM review team leader and the FPD both find the plan acceptable, they formalize their commitments and expectations by signing the plan.

What Value Does a Review or Estimate Plan Provide?

The Project Management Institute's, *Project Management Body of Knowledge* (PMBOK) references the development of a project charter as a key step in the Initiating Process Group of project management. The U.S. General Accountability Office's (GAO) *Cost Estimating and Assessment Guide*, GAO-09-3SP, cites "Develop the Estimate Plan" as an early step in their recommended best practices. AACE International's *Total Cost Management (TCM) Framework* section 7.3.2.1 "Plan for Cost Estimating and Budgeting" highlights the need to develop estimate plans. Industry standards and best practices support the development of an initiating document that describes how the preparation, development and approval of the PM reviews and estimates will be completed. PM calls this initiating document a review or estimate plan. The goal of a review or estimate plan is to set expectations and to get agreement between the review team leader and the FPD for how PM will conduct, and the FDP will support, the ICE, ICR or EIR. Experience has shown that establishing and following a comprehensive and realistic review or estimate plan is more likely to lead to a successful review or estimate.

What is in a Review & Estimate Plan?

A review or estimate plan consolidates elements of a project charter and an AACE International estimate plan. Every project and hence every review or estimate is unique, so they can vary slightly, but generally all of the following key areas are covered as a minimum in a review or estimate plan for each of type of review conducted by PM.

Section 1-Project Description and Background:

- Generally describes the project and relevant information regarding the project's history
- Identifies the project sponsor, the most recent critical decision and its date, and the anticipated next critical decision and the planned achievement date.

Continued on next page...



Questions/Comments

Review & Estimate Plans – The Roadmap for a Successful Review Don Chandler, Office of Project Assessments (PM-20)

Section 2 – Overview of the Review or Estimate:

- Outlines the purpose of the review or estimate
- Lists the roles and responsibilities of the various stakeholders involved in the review or estimate including the PM review team, FPD, integrated project team members, and other program representatives
- References procedural documents the estimate or review intends to follow such as PM standard operating procedure
- Explains each phase of the ICE, ICR or EIR including:
 - o Initiation
 - o Documentation sufficiency review
 - Finalizing the review or estimate plan
 - Conducting the review
 - o Documenting and reporting the review results
- The necessary documentation required to conduct the review or estimate (usually in an appendix)
- The review or estimate scope generally references what the scope of the effort will entail and references any guiding documents that will be followed. This section also addresses specific focus areas of planned subcommittees, assumptions and constraints regarding the review or estimate, and a summary key work breakdown structure elements that PM will investigate in depth.

Section 3 – Review or Estimate Logistics

- Lists dates and locations of any planned site visits
- Identifies specific on-site support requirements
- Outlines review or estimate milestones and completion dates including initiation, review or estimate plan approval, and delivery of the final report

Section 4 – Team Members and Assignments

- Lists project team key personnel and their contact information
- Identifies PM review or estimate team members, their assignments, and their contact information

Section 5 – Concurrence and Signatures

• Includes signature lines for the federal project director and the PM review or estimate team leader



Building Information Modeling (BIM) Ivan Graff, Office of Policy and Program Support (PM-50)

Dodge Data & Analytics¹ found that reliance on building information modeling (BIM) increased sharply in recent years, growing from 17% of survey respondents in 2007 to 71% in 2012 with 62% claiming a positive return on their investment. This in turn has fueled an increasing number of private sector owners, 68% as of 2014, to encourage or require the use of BIM on their projects.

For the last 15 years the United States Army Corps of Engineers (USACE), General Services Administration (GSA), and the National Institute of Building Sciences (NIBS) have developed and shared resources to facilitate incorporation of BIM in projects. USACE has evolved through three versions a data interchange standard that the NIBS BIM standard incorporated in its latest version². GSA has incorporated BIM in its own projects since 2006 and offers a BIM statement of work suitable for incorporation in contracts³. Case studies of GSA projects leveraging BIM cite examples of its use avoiding costs. For example, on a 2011 court house project, schedule information superimposed on construction plans revealed a conflict between trades that left unaddressed would have delayed the project. The construction manager instead restacked the trades and completed that phase of the project early.

Although neither the federal government nor the Department of Energy mandates the use of BIM, since April 2016 the United Kingdom government (UK) has required, through its project contracts, "fully collaborative 3D BIM." The UK believes BIM will reduce by a third the initial cost of construction and lifecycle costs while reducing by a half the length of construction or renovation projects. According to a 2018 Royal Institute of British Architects (RIBA) report⁴, early implementation data suggests the UK will achieve its goals.

What differentiates BIM? Under a traditional paradigm, specifications, designs, cost estimates, submittals, and as-built information exist independent of each. Update a specification or design and manual revisions to designs or cost estimates must follow. Coordination requires a conscious, constant effort. But with BIM, a single medium, the software, integrates objects with robust attributes that mature with the project. The software draws from this attribute data when it generates design documents, cost estimates, and reports documenting submittals and as-built conditions.

NIBS⁵ has observed owners increase their reliance on BIM after successive successful projects. NIBS recommends beginning a foray into BIM with:

²USACE, Construction-Operations Building information exchange Commentary (2013), <u>https://bit.ly/2TetREr</u>

- ³GSA, BIM Downloadable Documents, <u>https://go.usa.gov/xEFk5</u>
- ⁴NBS, National BIM Report (2018), <u>https://bit.ly/2IALSvv</u>
- ⁵NIBS, National BIM Guide for Owners (2017), <u>https://bit.ly/2TGzDDR</u>

Continued on next page...

¹Dodge Data & Analytics, *The Business Value of BIM in North America: Multi-Year Trend Analysis and User Ratings* (2013), <u>https://bit.ly/2Tb92cV</u>

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Building Information Modeling (BIM)

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- 1. Documenting existing conditions;
- 2. Selecting design software with BIM functionality and that can produce construction documents;
- 3. Engaging stakeholders in a design review, preferably with a virtual three dimensional mock-up, to ensure the design;
- 4. Leveraging software capabilities to improve coordination by detecting clashing elements; and,
- 5. Recording the as-built physical and functional conditions including all of the attributes a facilities management organization needs to operate and maintain the new or renovated assets.

These steps alone potentially reduce design iterations, construction waste, rework, and duplicative efforts, but as NIBS observes the integrated project team can also use BIM to:

- 1. Estimate costs by digitally connecting the model to a unit cost reference and through accurate quantity takeoff not just during conceptual, preliminary, and final design but also when considering options or changes;
- 2. Assemble a schedule by adding activities to objects and the sequencing their construction;
- 3. Optimally select a site for a project by combining BIM and geospatial information system tools fed project requirements; and,
- 4. Fabricate three dimensional models for design reviews and unique components for assemblies specially designed for the project.

Once turned over to operations and maintenance personnel, BIM becomes the basis for managing assets, disaster planning and responses, and space.

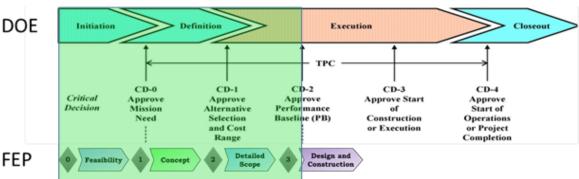
Does your site use BIM or have you used BIM on a past project? Please tell the author about your experiences.



Planning Matters: Front-End Planning Courses Being Developed Linda Ott, Professional Development Division (PM-40)

Whether you are planning a vacation or a major capital asset investment, the planning of it matters. Failure to plan is planning to fail. DOE's project management practices are addressing that gap in planning by introducing courses in front-end planning (FEP) to the Project Management Career Development Program (PMCDP).

Two new FEP courses are planned. Both courses will build on the level 1 *Project Management Systems and Practices in DOE* course that instructs participants on the requirements of all capital asset projects in accordance with DOE Order 413.3B Change 5. For these courses, the term 'front-end planning' applies to the pre-conceptual planning phase through the approval of mission need (CD-0), the conceptual design phase through approval of the preliminary baseline range (CD-1), and the preliminary design phase through approval of the performance baseline range (CD-2). The chart below depicts the phases of the DOE project life cycle that the FEP courses will address in two parts.



FEP Part I, "Getting to CD-1" will cover the planning phase from pre-conceptual planning through CD-1 "*Approve Mission Need*" and will address pre-approval of a mission need that cannot be met through other than material means at Critical Decision (CD-0) to Approve Alternative Selection and Cost Range, which is the optimum solution (CD-1). FEP Part II is expected to pilot early in FY2020 and will continue through CD-2 "*Approve Performance Baseline (PB)*." The proposed Part II Course will align to 413.3B deliverables and activities required in following approval of CD-1 in the project life cycle through CD-2, Approve Performance Baseline. The course will address the activities and project artifacts that are refined and developed to further detail scope. The cost, schedule, and risk factors that shape and define scope will be examined and discussed.

The FEP Part I course materials are currently being reviewed with an expected pilot delivery in June 2019; this delivery will be compressed in a 2-day format. If you would like to participate in the pilot, please contact <u>Linda Ott</u> to get your name on the list.



Questions/Comments

PARS Update Zac West, Office of Project Controls (PM-30)

The PARS June 2019 upgrade features the capability to run earned value management systems metrics tests to support contractor self-surveillance and federal oversight. DOE is working with EFCOG to provide the maximum number of automated tests for EVMS surveillance and compliance. The June release will make available approximately 100 of 197 automated earned value management system metric tests available. These tests are specified in Appendix A of the DOE PM-30 Earned Value Management System Compliance Review Standard Operating Procedure and will be included in the Empower tool as part of PARS. Encore Analytics, the company which owns Empower, plans to add these tests for those who buy Empower outside of PARS.

To enable these tests in PARS, a contractor will need to upload comma separate values (CSV) data as compared to the current MDB (Access database) format. This allows cost data uploads at the work package level rather than the control account level. The new CSV Extractor will be available in June to provide data to PARS. For those not using the extractor, DOE will check the format of the data before accepting it into PARS.

The goal in providing the metric tests in PARS is to help both the contractor and the federal team get a monthly snapshot with a way to drill into the EVMS system to find any problems. The goal is to have confidence that the EVM system is providing consistently reliable data for decision makers. This allows users to believe in the performance data for cost and schedule and the decisions made from these reports are valid tools for project management.

When incorporated in PARS, Empower will offer a dashboard to help the user quickly scan the automated EVMS tests and then follow up on areas of concern. EFCOG and DOE's intent is to enable contractors to identify EVMS areas needing improvement so they can take corrective action before the federal team requests the corrected action. This will make identification and corrections transparent to all PARS users with access to a specific project.

PM is seeking feedback on the EVMS tests and the other new PARS features. We look forward to seeing many of you at the project controls discussion on the third day of the PM Workshop when there will be a presentation on the PARS upgrade.

Also, as always, the current PARS schedule for uploads and assessments is located at (https://community.max.gov/x/m4IIY).



Federal Acquisition Institute (FAI) Continuous Learning Opportunity

DOE's Senior Procurement Executive recently sent an email regarding Category Management training available through the FAI. The email is shared below along with instructions for registering for upcoming webinars available through FAI's Training Application System (FAITAS).

The Office of Management and Budget (OMB) issued <u>Memorandum M-19-13</u> on March 20, 2019, *Category Management: Making Smarter Use of Common Contract Solutions and Practices*, re-emphasizing the importance and benefits of utilizing the strategic approach to buying "smarter" by utilizing Category Management practices. Specifically, the "...Memorandum is to provide guidance on the use of category management. As used in this document, the term "category management" refers to the business practice of buying common goods and services as an enterprise to eliminate redundancies, increase efficiency, and deliver more value and savings from the Government's acquisition programs."

To implement the category management program, the OMB will require agencies to carry out a set of tailored management actions and provide updates on these management actions to evaluate their progress in bringing common spending under management. To that end, the DOE's Senior Procurement Executive (SPE) is <u>requiring ALL 1102s</u> to take advantage of GSA's online Category Management training, specifically the Category Management Foundations Express Course. If any 1102 has not completed this course as of the date of this message, the SPE is affording the 1102s additional time to complete the course prior to the end of FY19. The SPE is also recommending ALL Acquisition Workforce members also complete this Category Management course. The course schedule is below and the instructions to register through <u>FAITAS</u> are shown below.

Category Management Foundations Express Course Schedule for the remainder of FY19:

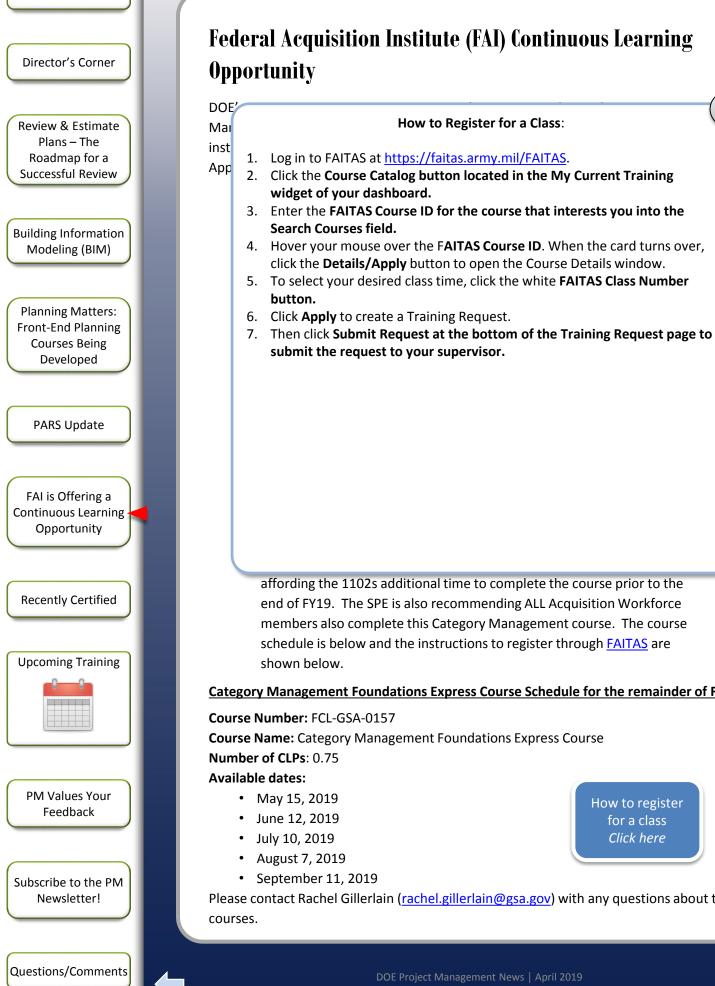
Course Number: FCL-GSA-0157 Course Name: Category Management Foundations Express Course Number of CLPs: 0.75

Available dates:

- May 15, 2019
- June 12, 2019
- July 10, 2019
- August 7, 2019September 11, 2019

Please contact Rachel Gillerlain (<u>rachel.gillerlain@gsa.gov</u>) with any questions about these courses.

How to register for a class *Click here*



Federal Acquisition Institute (FAI) Continuous Learning

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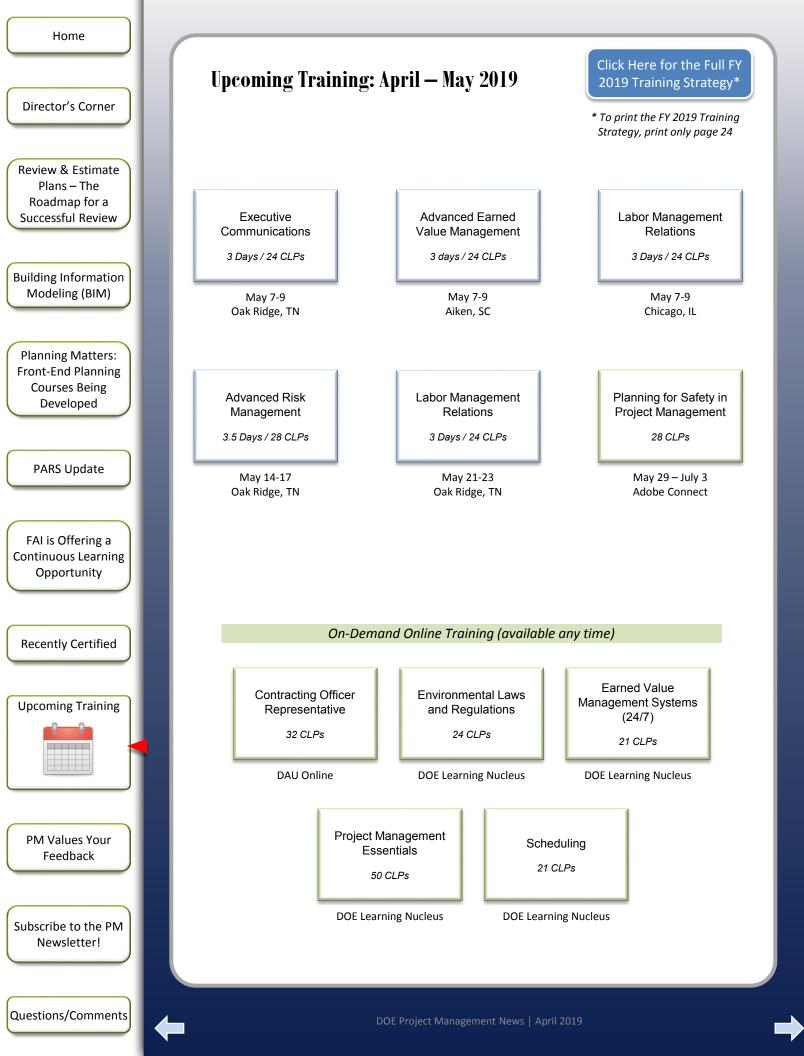


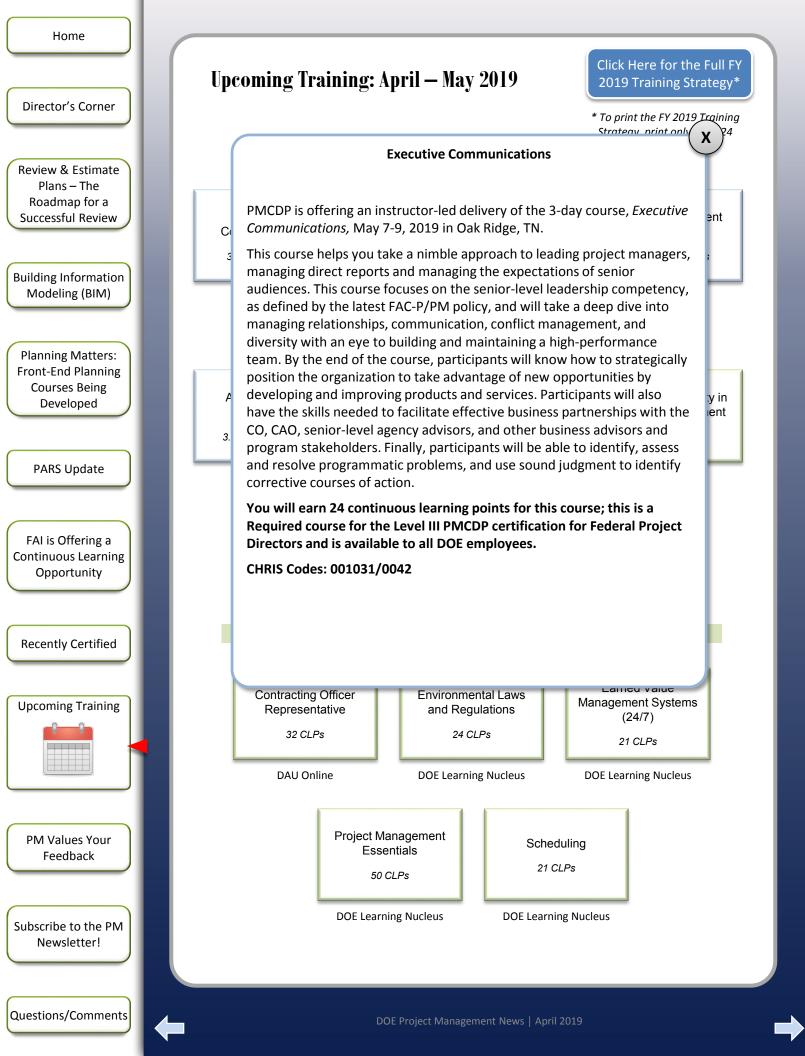
Recently Certified

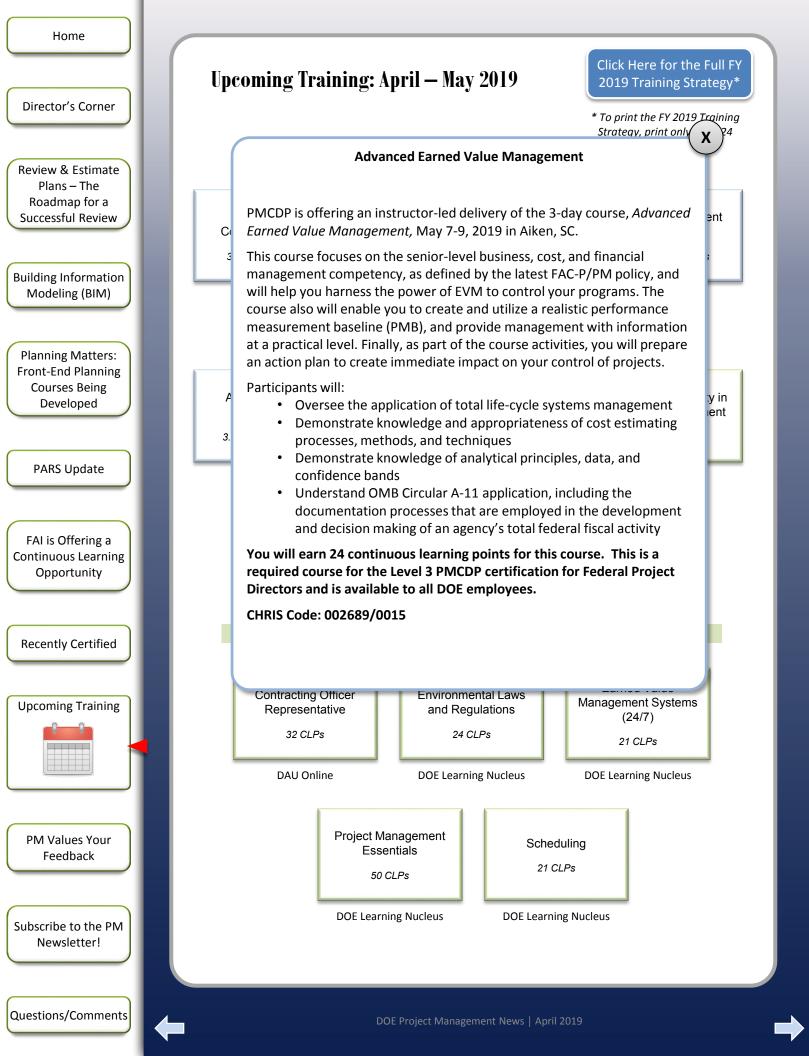
The following certifications were recently issued.

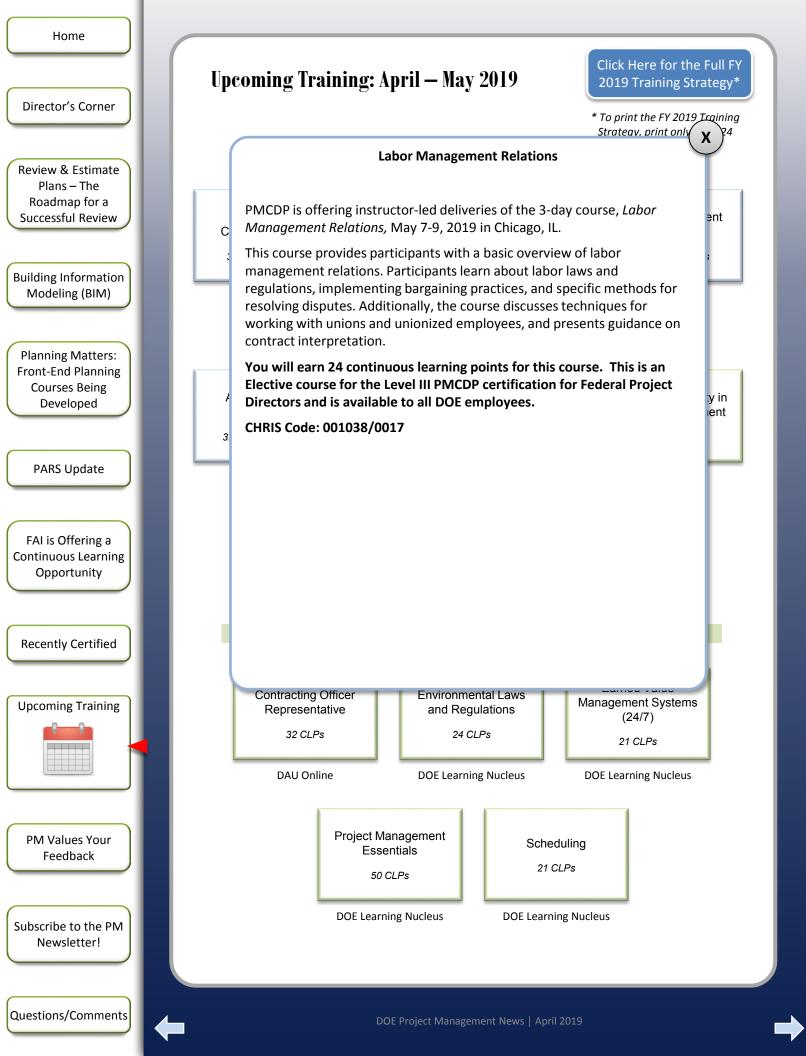


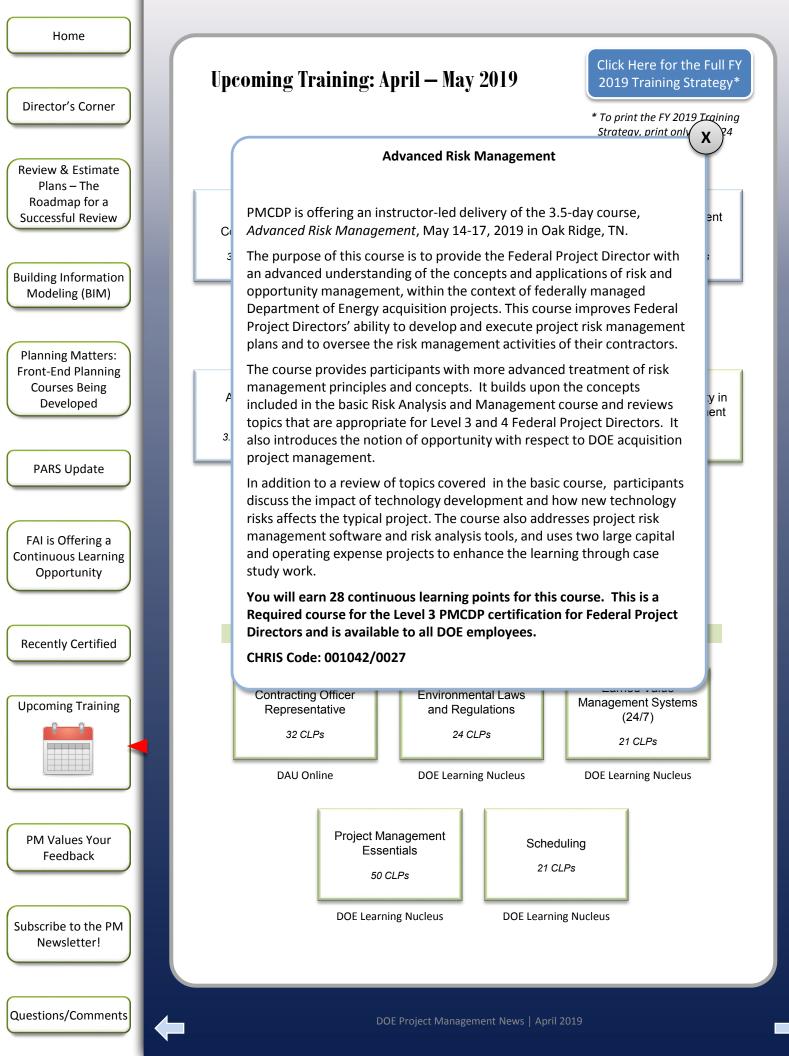
Congratulations to our newly certified members!

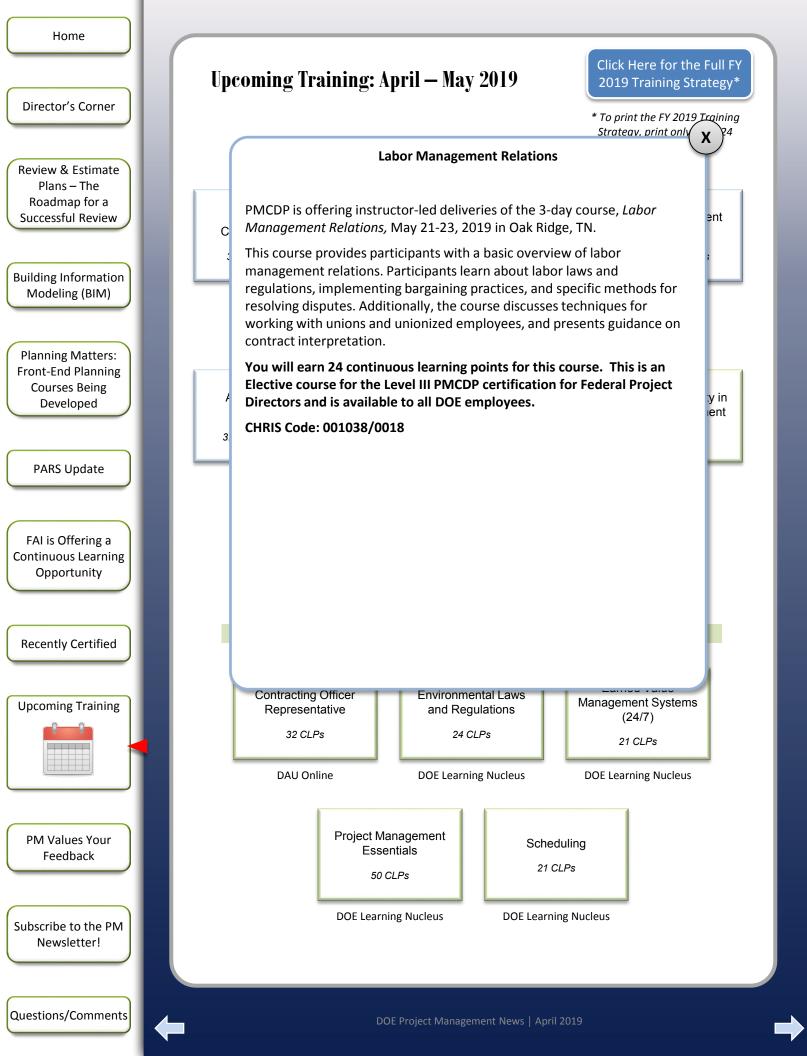


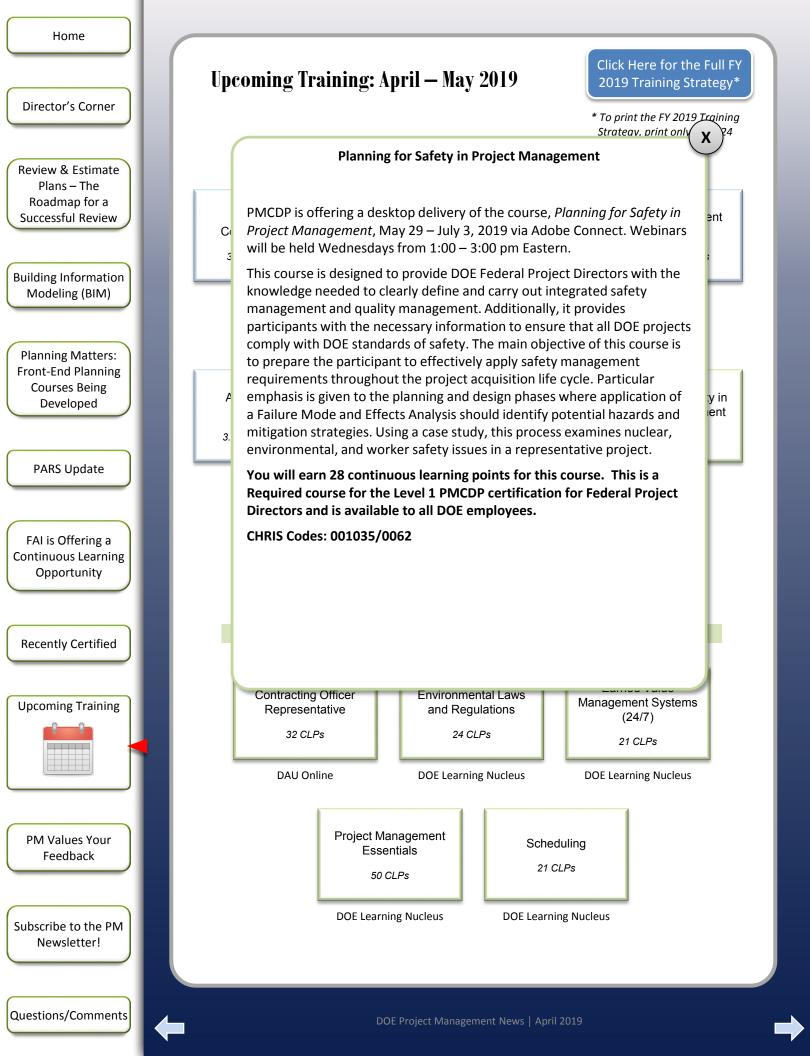


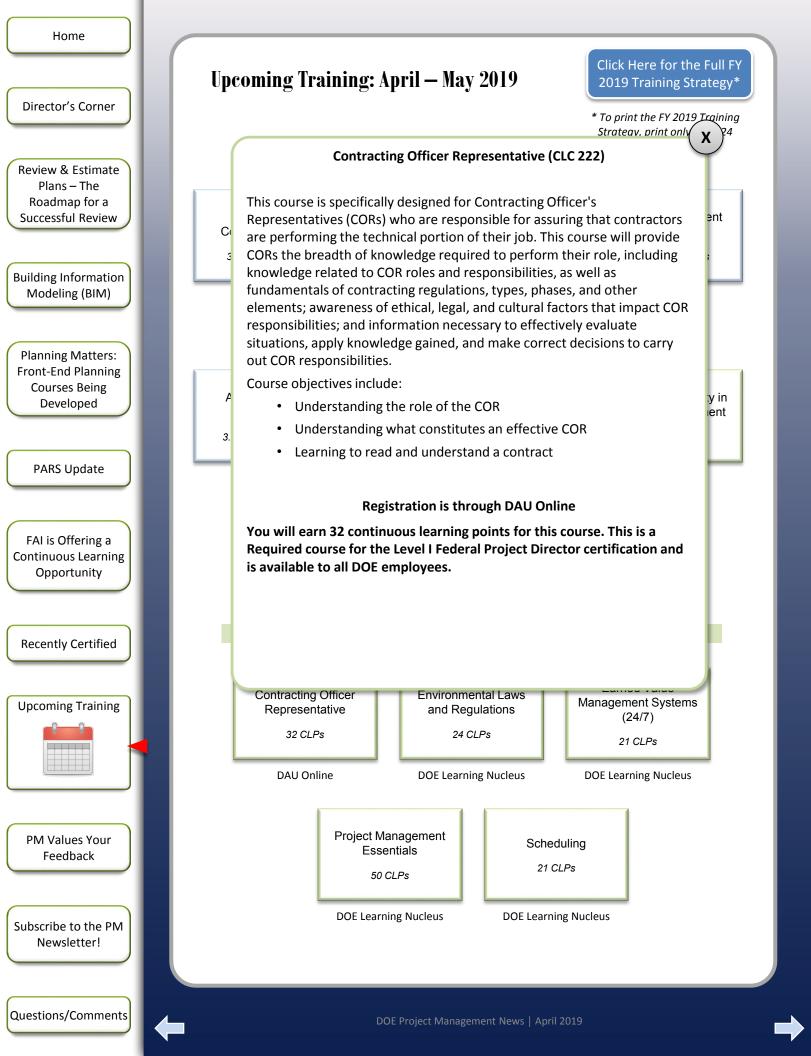












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Questions/Comments

Upcoming Training: April – May 2019

Click Here for the Full FY 2019 Training Strategy*

* To print the FY 2019 Training Strateav, print only

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Environmental Laws and Regulations

PMCDP hosts on DOE's Learning Nucleus a Level II Elective Course titled "Environmental Laws and Regulations." This online course provides an overview and basic working knowledge of pertinent environmental laws and regulations, and how those laws and regulations impact managing projects at DOE. The course identifies the resources to assist DOE staff and managers in the event they are asked to support or manage a project with potential environmental impacts. This course supports DOE employees and the Department in achieving environmental sustainability goals, including reducing energy use, enhancing pollution prevention, and water conservation.

Upon completion of the training, all participants will be able to identify the intent of the major Federal environmental laws, regulations, DOE Orders, Directives and guidance. Participants will also be able to list the detailed processes involved in the implementation of major environmental requirements by the Department of Energy.

This course is comprised of seven modules.

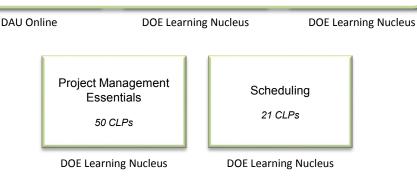
- DOE's Framework for Environmental Compliance
- All About Water
- All About Air

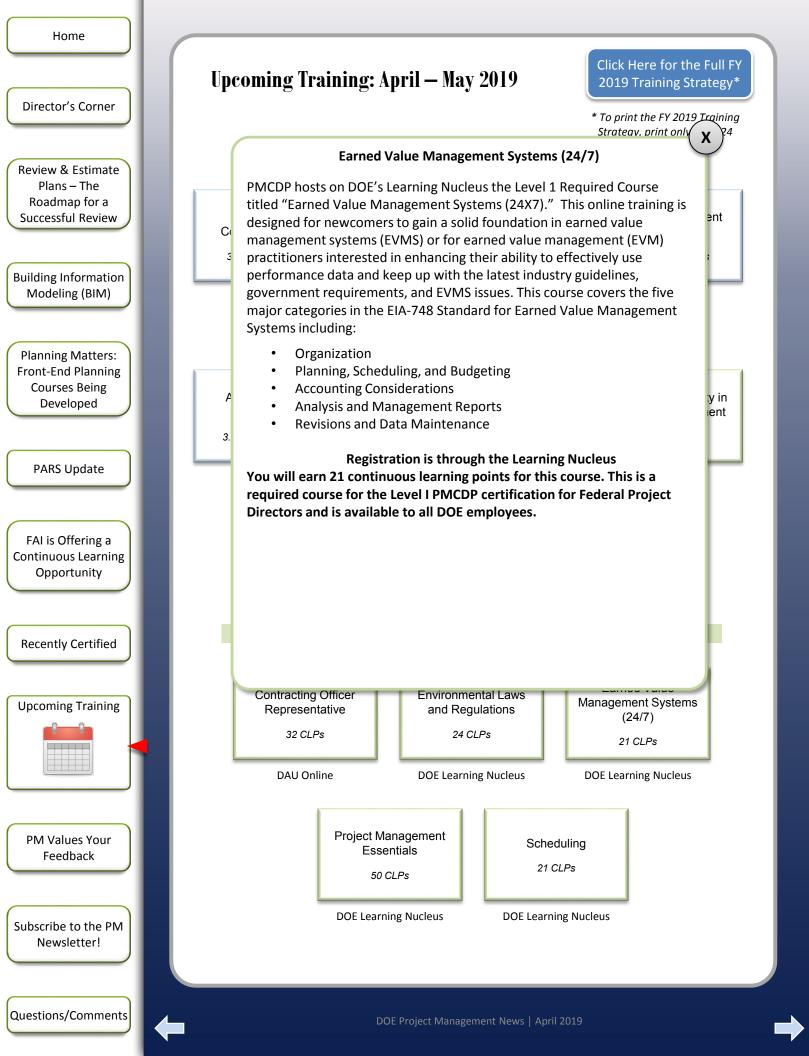
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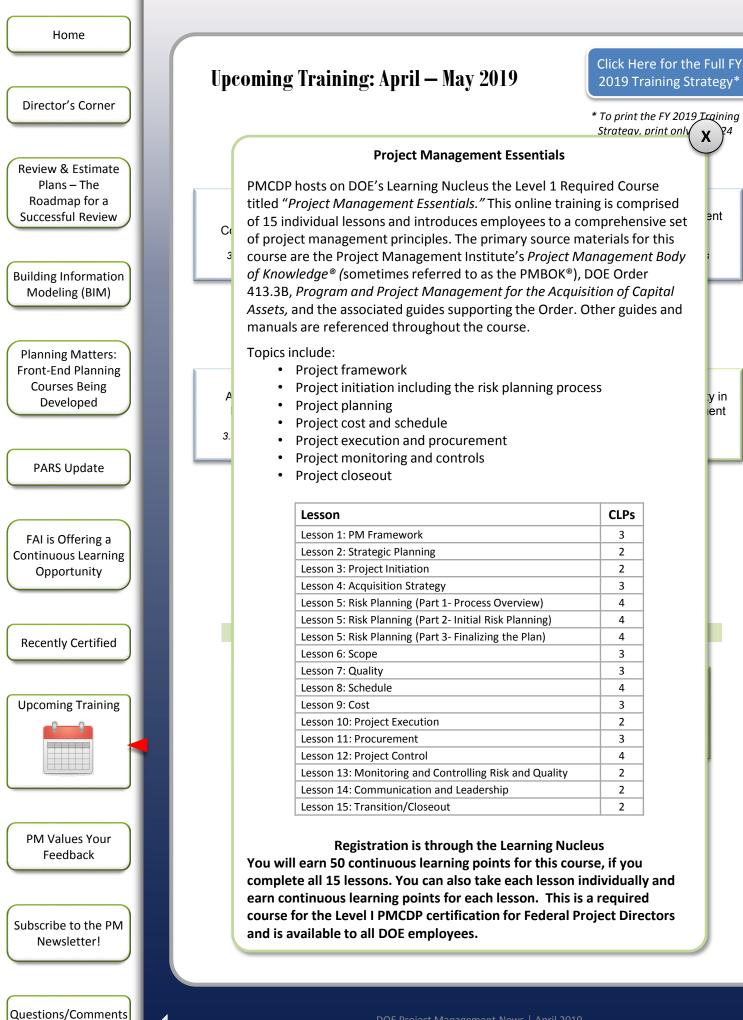
- All About Waste
- All About Clean Up
- Sustainability
- Cultural Considerations

Successful completion of any six modules is required to receive credit for the course. However, a seventh module can be completed for continuous learning points.

Registration is through the Learning Nucleus You will earn 24 continuous learning points for this course. This is an elective course for the Level II Federal Project Director certification and is available to all DOE employees.





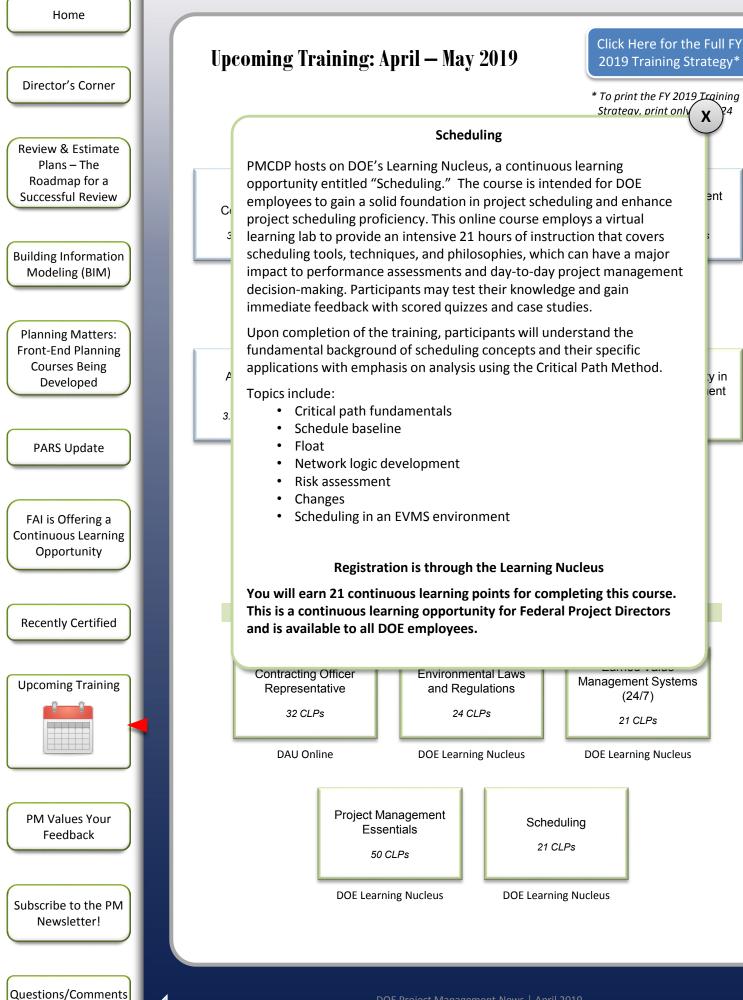


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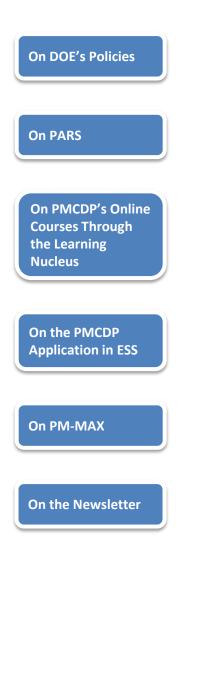
Questions/Comments

PMCDP FY 2019 Training Schedule

Course Title/Instructor	Length CLPs	Planned Delivery Timeframe	Location
Executive Communications	3 Days	May 7-9	Oak Ridge, TN
CHRIS Code: 001031/0042	24 CLPs		Peter Rivera
Advanced EVMS	3 Days	May 7-9	Aiken, SC
CHRIS Code: 002689/0015	24 CLPs		Leatrice Green
Advanced Risk Management	3.5 days	May 14-17	Oak Ridge, TN
CHRIS Code: 001042/0027	28 CLPs		Peter Rivera
Planning for Safety in Project Management CHRIS Code: 001035/0062	28 CLPs	Wednesdays 1-3pm May 29-July 3	Adobe Connect
Project Management Systems and Practices in DOE CHRIS Code: 001024/0050	60 CLPs	Tue/Thursdays 1-3pm July 16-September 3	Adobe Connect
Advanced EVMS	3 days	July 16-18	Oak Ridge, TN
CHRISCode:	24 CLPs		Peter Rivera
PM Simulation	5 days	August 5-9	Oak Ridge, TN
CHRISCode:	40 CLPs		Peter Rivera
Cost and Schedule Estimation	5 days	September 9-13	Oak Ridge, TN
CHRISCode:	40 CLPs		Peter Rivera



Click on any of the buttons below to view the details





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On the PMCDP Application in ESS

On PM-MAX

On the Newsletter

The Office of Project Management welcomes your comments on the Department's policies related to DOE Order 413.3B. Please send citations of errors, omissions, ambiguities, and contradictions to <u>PMpolicy@hq.doe.gov</u>. Propose improvements to policies at <u>https://hq.ideascale.com</u>.



Click on any of the buttons below to view the details



If you have any questions about this schedule or your project's specific input, please contact your respective PM analyst. If you have technical questions about PARS, such as how to reset your password, please contact the PARS Help Desk at <u>PARS_Support@Hq.Doe.Gov</u>. And as always, PARS documentation, Frequently Asked Questions (FAQs) and other helpful information can be found at <u>https://pars2oa.doe.gov/support/Shared%20Documents/F</u> <u>orms/AllItems.aspx</u>

The current PARS reporting schedule is located in PM-MAX at the following link https://community.max.gov/x/m4lly



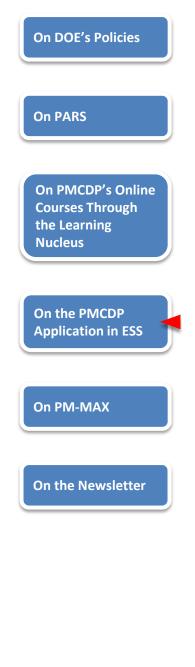
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Have a question, found a bug or glitch in a PMCDP online course, or want to provide feedback on a PMCDP course you took through DOE's Learning Nucleus? We have a mailbox for that! Submit your issues through <u>PMCDPOnlineCourseSupport@hq.doe.gov</u>



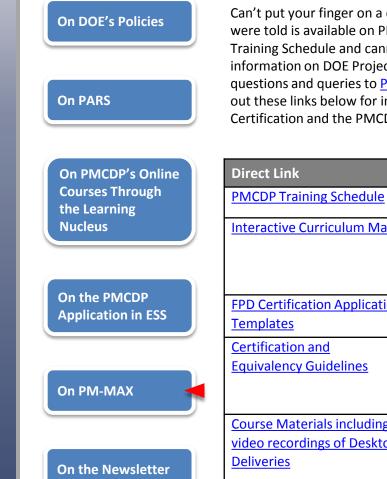
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Can't find the Word templates to prepare to apply for FPD certification? The Certification and Equivalency Guidelines (CEG) isn't where you last found it and you are not sure where to look? Use the <u>PMCDP.Administration@hq.doe.gov</u> mailbox

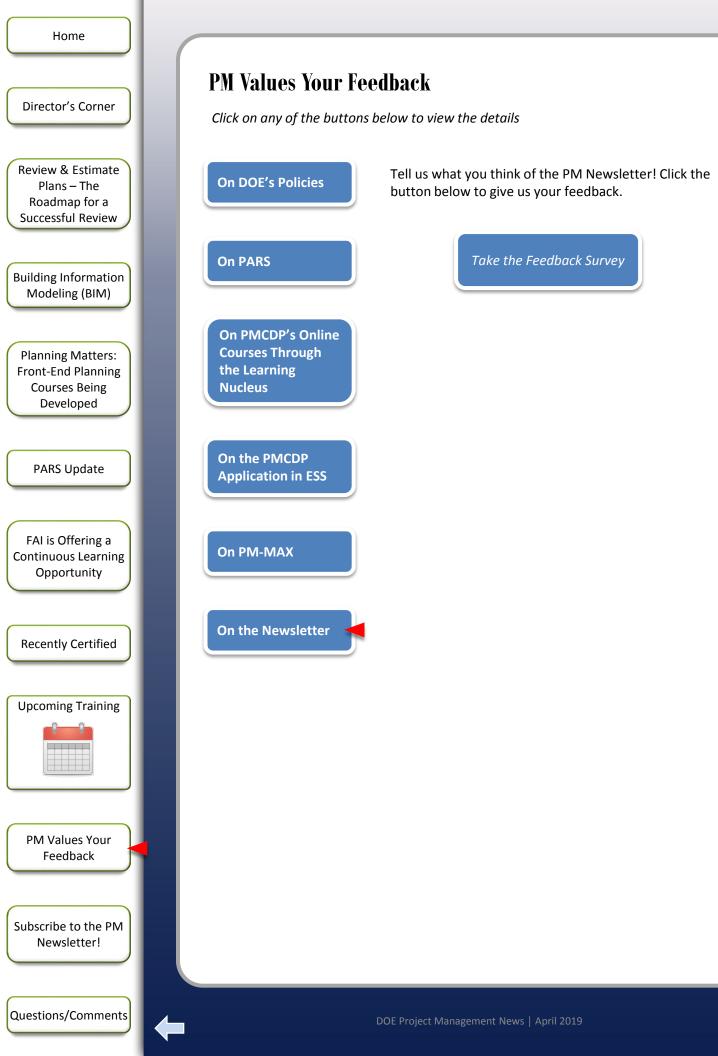


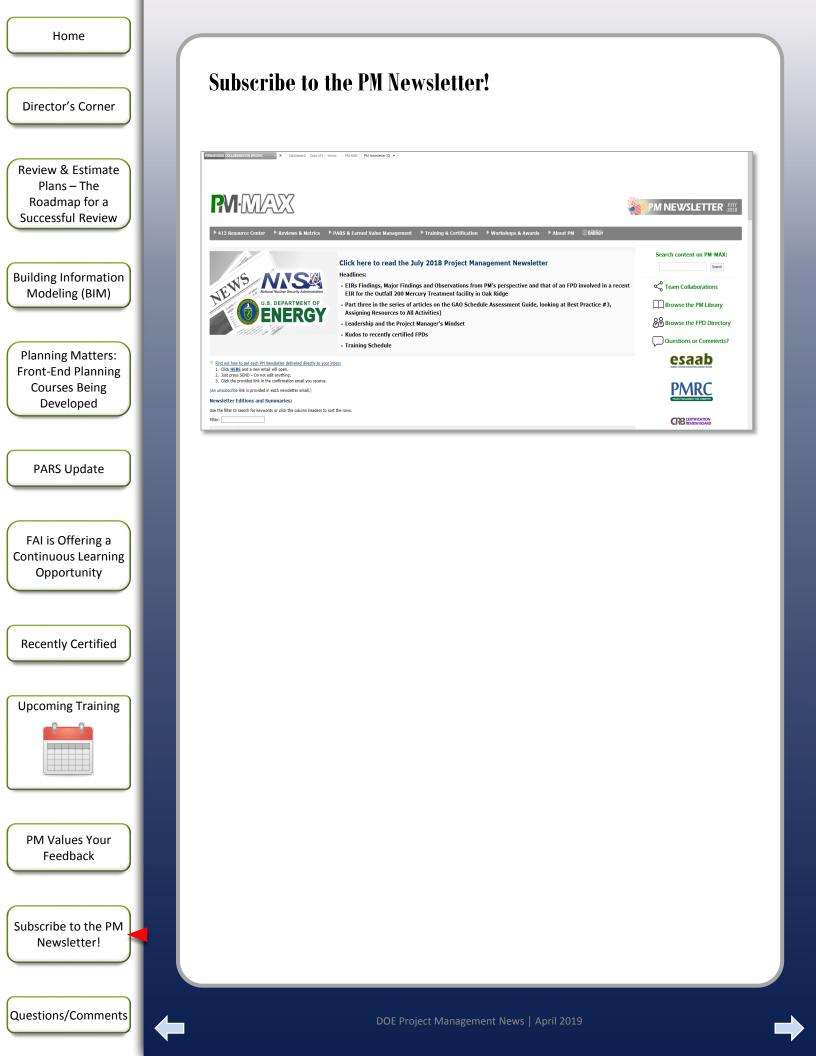
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Can't put your finger on a document or information you			
were told is available on PM-MAX? Looking for the PMCDP			
Training Schedule and cannot find it? Looking for			
information on DOE Project Management? Submit your			
questions and queries to <u>PMWebmaster@doe.gov.</u> Check			
out these links below for information related to FPD			
Certification and the PMCDP Training			

Direct Link	Copy / Paste
PMCDP Training Schedule	https://community.max.gov/x/BgZ cQw
Interactive Curriculum Map	https://community.max.gov/downl oad/attachments/1131743153/PM CDP%20Interactive%20Map.pdf?ve rsion=1&modificationDate=151248 2483778&api=v2
FPD Certification Application Templates	https://community.max.gov/x/uAd 1Qw
Certification and Equivalency Guidelines	https://community.max.gov/downl oad/attachments/1131743160/Jun e_2015_CEG_FINAL.pdf?version=1 &modificationDate=147283848765 2&api=v2
<u>Course Materials including</u> <u>video recordings of Desktop</u> <u>Deliveries</u>	https://community.max.gov/x/UAT 3Rw





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Questions/Comments-

Questions or Comments

For specific information, please contact a Professional Development Division team member:

Professional Development Team in the Office of Project Management (PM)

Linda Ott — Division Director for Professional Development, PMCDP Program Manager, FPD Certifications Manager, PM Newsletter Editor, Linda.Ott@hq.doe.gov, 202-287-5310

Sigmond Ceaser — Alternate Delivery Platforms, PMCDP Review Recommendations Lead, PMCDP Curriculum Manager, Sigmond.Ceaser@hq.doe.gov

Ruby Giles — PMCDP Budget Manager, PMCDP Training Coordinator and Training Delivery Manager, Course Audit Program, Ruby.Giles@hq.doe.gov

If you would like to contribute an article to the Newsletter or have feedback or ideas you'd like to share, contact the Editor, Linda Ott.

Access PMCDP on PM-MAX from anywhere: go.max.gov/doe-pm