



IT Skills Development Programs

2016 CATALOG



A highly-qualified IT workforce empowers CMS with the competencies and tools to meet new and complex challenges effectively.

Delivery of CMS technology solutions integrates tightly with our CMS mission, enabling important health care services for the American public.

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IT Skills Development Programs

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Director's Message

Information Technology (IT) is highly dynamic and evolving continuously as business needs and technology change. Accordingly, recruiting and retaining a highly qualified IT workforce remains essential to ensure that these changes are met capably.

We are continually impressed and proud of the world-class talented people that make up our organization. Your development and growth as IT professionals is key to our continued success. With that in mind, the Office of Technology Solutions (OTS) wants to invest in your future. I am pleased to introduce this IT Skills Development Program Catalog as part of our comprehensive IT Workforce Development Initiative (WDI).

We designed the WDI to identify training that is important for development along several different IT career tracks and provide links to obtaining that training. This catalog can help you tackle immediate needs, provide information, and generate outcomes that support CMS strategic workforce initiatives. Earlier in 2016, we surveyed skills across the CMS IT workforce and we used your responses to develop this catalog.

This catalog is intended to be used as a tool to plan your skills development path. Development opportunities are employee-centric and self-guided, using a variety of traditional and non-traditional sources, venues, and tools. Get started now – review the catalog, then talk with your peers, mentors, coaches, and supervisor about your ideas and available training.

We will continue to evolve the SDP Catalog as we uncover new and creative opportunities. I hope that you will take advantage of the training and development resources available to you, and join us in our effort to keep the CMS IT workforce at the forefront of transforming health care services.



Janet Vogel, Director, OTS

Desired Outcomes of CMS IT Workforce Professional Development

- CMS IT professionals continually enhance and refresh their technical proficiency and soft skills to grow with mission needs.
- Value-added technology solutions are implemented.
- Efficient IT resource allocation occurs to sustain employee satisfaction and provide development opportunities.
- Capabilities to deliver and support innovative and fresh technical solutions for business needs are expanded.

How To Use this Catalog

Each IT Skills Development Program contains core skills, soft skills, and related skills and knowledge to help you target a set of competencies and training opportunities for areas of interest. Development opportunities listed are for general planning purposes and are flexible based on your needs. Use this catalog to help create your own individual development path.

a) Navigating the Catalog

To select a Skills Development Program in the catalog, click on one of the nine areas in the table on page 3. See Appendix A for training links and learning resources.

b) Searching the Catalog

To search for a particular word or term in the catalog, press “CTRL+F” and type the word or term in the “Find” box of the Adobe® Reader menu bar (typically in the upper right corner of the screen). Then, press “Enter.” The small down arrow to the right of the “Find” box gives options for refining a search. The small left and right arrows search backwards and forwards in the document.

c) Learning Methods

Employee growth and development can occur in many contexts using various learning techniques. Learning methods include:

- | | |
|-------------------------------|---------------------------|
| 1. Self-Directed (E-Learning) | 4. Rotational Assignments |
| 2. Formal Classroom Training | 5. Coaching |
| 3. On-the-Job-Training (OJT) | 6. Mentoring |

d) Preparing to Use Learning Resources

1. Consult with your supervisor to ensure appropriate training opportunities.
2. Manage your time and study habits effectively.

Skills Development Programs*

Policy / Planning & Technology Management (PPTM) ¹	Information Security (IS) ²	Enterprise / Systems Architecture (ESA) ³	Applications Development (AD) ⁴	Data Management (DM) ⁵	IT Infrastructure Management (IFM) ⁶	Investment & Contract Management (ICM) ⁷	Business Operations (BO) ⁸	IT Service Management (ITSM) ⁹
Risk Management	Cybersecurity Policy & Planning	Enterprise Architecture	Application Development Operations	Data Architecture	Cloud Computing	COR / GTL	Correspondence Management	Service Desk & Incident Management
IT Program / Project Management	IT Architecture Security	Solution Architecture	Business Analysis	Data Integration	Mobile Computing	Acquisition / Procurement Strategy	Facilities and Space	Change Management
Business Process Analysis	Information Assurance	Application Architecture	Systems Lifecycle	Business Data	Video & Telecommunications	Price and Cost Analysis	Travel (FATA) Liaison	Service Level Management
Business Requirements Gathering & Analysis	Risk Management	Project Management	Systems Testing and Evaluation	Data Analytics	Infrastructure Virtualization	Federal IT Budgeting	HR Liaison	Problem Management
Capital Planning & Investment Control	Incident Detection & Response	—	—	Data Storage	Data Center Operations & Management	IT Portfolio Management	Time and Attendance	Business Relationship Management
Change Management	—	—	—	Business Intelligence Tools Administration	Data Storage Management	Information Technology Compliance	Training Coordination	—
IT Cost Estimation and Analysis	—	—	—	Data Integration Tools Administration	IT Service Management Operations	—	Administrative Budget Liaison	—
—	—	—	—	Big Data Administration	—	—	Office Support Assistants	—

*These IT Skills Development Programs are broad categories that accommodate many IT roles at CMS. Areas of focus within each Program can guide planning efforts and target training to enhance and refresh competencies. There is no priority order or recommended training sequence listed. Talk with your supervisor about any of the training opportunities available.

Skills Development Programs Defined*

Number	Program	Skills
1	PPTM	Manages technology programs that fulfill business needs and takes into account budgetary and policy considerations.
2	IS	Assesses, processes, and implements technology that protect critical information, systems, and data, which are considered to be sensitive, private, and confidential in nature, against unauthorized use, access, and manipulation.
3	ESA	Applies skills to manage the overarching technology architecture of the organization and how it functions as the foundation for building and evolving all other IT systems.
4	AD	The process of computer programming, documenting, testing, and bug fixing involved in creating and maintaining applications and frameworks resulting in a software product.
5	DM	The development and execution of data architectures, policies, practices, and procedures in order to manage the information lifecycle needs of an enterprise in an effective manner.
6	IFM	Implements, maintains, enhances data center operations, and improves overall effectiveness of networks, hardware, and software, and reduces costs.
7	ICM	Manages contracts to identify and minimize any financial risk to the organization.
8	BO	Manages and optimizes the day-to-day operational functions of the organization.
9	ITSM	Deploys IT services that satisfy business goals, technical requirements, and functional needs.

*A list of soft skills is included with each IT Skills Development Program to provide an integrated competency overview for both core and soft skills. Note that the list of soft skills is similar for each IT Skills Development Program.



Policy / Planning & Technology Management Skills Development Program

Competencies include managing technology programs that fulfill business needs including acquisition, budget, systems lifecycle, and policy considerations.

CORE SKILLS

Risk Management, Lifecycle Support, IT Program and Project Management, Business Requirements Gathering and Analysis, Capital Planning and Investment Control, IT Reporting, Change Management, Business Process Analysis, IT Acquisition Strategy, IT Enterprise Architecture Strategy, IT Cost Estimation and Analysis, Quality Assurance, Federal IT Budgeting, IT Product Evaluation

Core Skills Development Opportunities

■ Risk Management

- Risk Management Model
- Project Management Institute Risk Management Professional (PMI RMP) Certification

■ Lifecycle Support

- Medicare, Medicaid & Marketplace Programs, Policy, and Systems
- CMS Technical Reference Architecture

Core Skills Development Opportunities (cont.)

■ IT Program and Project Management

- Agile & Scrum Management
- Federal Acquisition Certification for Program & Project Managers (FAC P / PM)
- PMI Project Management Professional (PMP) Certification
- Lean Methodology & Management

■ Business Requirements Gathering and Analysis

- Detailing Business Data Requirements
- Use of Case Modeling & Requirements

■ Capital Planning and Investment Control

- Capital Budgeting & Investment Analysis

■ IT Reporting

- Business Intelligence (BI) Reporting Tools
- Data Analysis & Reporting

■ Change Management

- Information Technology Infrastructure Library (ITIL) Change Management
- Association of Change Management Professionals (ACMP)
- Certified Change Management Professional (CCMP)

■ Business Process Analysis

- Essential Skills for Business Analysis
- Business Process Management

■ IT Acquisition Strategy

- Integrated Acquisition for Decision Makers
- Systems Acquisition Management

■ IT Enterprise Architecture Strategy

- Fundamentals of Systems Engineering
- Enterprise Architecture & Organizational Design

Core Skills Development Opportunities (cont.)

■ IT Cost Estimation and Analysis

- Cost Estimating Fundamentals
- Project Cost & Schedule Estimating
- Return on Investment
- Financial Analysis Techniques

■ Quality Assurance

- Fundamentals of Capability
Maturity Model Integration (CMMI)
- Software Testing Concepts &
Automation Overview

■ Federal IT Budgeting

- Budget Formulation & Execution
- Federal Appropriations Law

■ IT Product Evaluation

- Standard Technical Evaluation
Process (STEP) Methodology
- Federal Acquisition Regulation
(FAR) Overview

SOFT SKILLS

Business Acumen, Building Coalitions, Leading People, Driving Results, Leading Change

To access the Learning Management System (LMS) learning portal visit

<https://ams.hhs.gov>, Select HHS Learning Portal, under Open Access Internet, Scroll down to Catalog Search, and Search by course name.

To view Soft Skills Courses offered by the CMS Leadership Institute (CMSLI), view the catalog at <http://intranet.cms.gov/Component/OOM/DTD/PDF/CMS-Leadership-Institute-Catalog.pdf>.

Soft Skills Development Opportunities

■ Business Acumen

- Financial Management
- Human Capital Management
- Technology Management

■ Building Coalitions

- Partnering
- Political Savvy
- Influencing / Negotiating
- Productive Team Member

■ Leading People

- Conflict Resolution
- Have a Nice Conflict
- Leveraging Diversity
- Developing Others
- Team Building
- Crucial Conversations
- Virtual Teamwork
- Building Trust in Teams
- Effective Team Leader
- Exercising Influence
- Soliciting Feedback

■ Driving Results

- Accountability
- Customer Service
- Decisiveness
- Problem Solving
- Technical Credibility
- Becoming Customer Focused
- Business Writing
- Writing for Clarity & Impact
- Effective Meetings
- Effective Presentations
- Emotional Intelligence
- Problem Solving & Decision Making
- Time Management

■ Leading Change

- Creativity & Innovation
- External Awareness
- Flexibility
- Resilience
- Strategic Thinking
- Vision

Related Skills & Knowledge Development Opportunities

- Agile Leadership Principles
- Agile Project Management
- Principles for Developing Technical Leadership Skills
- Developing the Tools and Techniques for Thinking and Leading Strategically
- Government Contracting
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Ethics in IT
- Applied Project Management for Federal Government
- Power of a Connected Agile Workforce
- The Power of Relationships
- Earned Value Management
- Management & Leadership



Information Security

Skills Development Program

Competencies include protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction to provide confidentiality, integrity, and availability. Manages IT security implications within the organization.

CORE SKILLS

Cybersecurity Policy and Planning, IT Architecture Security, Information Assurance, Risk Management, Incident Detection and Response

Core Skills Development Opportunities

■ Cybersecurity Policy & Planning

- Strategic Security Management
- Application Security
- High Value IT Assets & Information Sets
- Security Testing & Continuous Monitoring
- IT Security Training & Awareness

■ IT Architecture Security

- Fundamental Computer & Network Architecture
- Networks & Telecommunication Security
- IT Systems Operations & Maintenance

Core Skills Development Opportunities (cont.)

■ Information Assurance

- Security, Privacy Policy & Standards
- Data Security
- Data Privacy
- Identity Management & Authentication
- Vulnerability Management

■ Risk Management

- Enterprise IT Service Continuity
- IT Impacts to Business Priorities
- Risk Management Concepts & Fundamentals
- Privacy Fundamentals & Impacts

■ Incident Detection and Response

- Perimeter Defense
- End Point Defense
- Lateral Movement
- Enterprise Audit Log Management & Visibility
- Incident Management
- Digital Forensics
- Network Forensics

SOFT SKILLS

Building Coalitions, Leading People, Leading Change, Business Acumen, Driving Results

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■ Business Acumen

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- Effective Presentations
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Related Skills & Knowledge Development Opportunities

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Effective Communication
- Law & Ethics
- Task Management
- Human Resource Security
- Business Continuity
- Teamwork
- Legality in Security
- Preparing for Audits
- Root Cause Analysis for Plan of Actions & Milestones (POA&M)
- Security Authorization Process Document Review
- Information Assurance
- Information Systems Acquisition, Development & Maintenance
- Security Architecture / Modeling
- Asset Protection
- Management & Leadership
- Physical & Environmental Security
- Security Vulnerability Management
- Incident Management



Enterprise / Systems Architecture

Skills Development Program

Competencies include managing the intersection between business and technology to deliver the overarching technology architecture of the organization. Manages the foundation for building and evolving all IT systems.

CORE SKILLS

Solution Architecture, Application Architecture, Enterprise Architecture, Project Management

Core Skills Development Opportunities

■ Solution Architecture

- Stakeholder Analysis
- Systems Analysis
- Data Categories
- Cloud Computing Reference Architecture
- Technology Forecasting

■ Application Architecture

- Fundamentals of Software Engineering
- Section 508: What is it and Why is it Important?
- Contracting for Architect / Engineers
- Privacy & Security

Core Skills Development Opportunities (cont.)

■ Enterprise Architecture

- Federal Enterprise Architecture (FEA)
- Understanding the Reference Models
- Using the CMS Business Reference Model (BRM)
- Strategy Playbook
- Business Analysis
- Creating Enterprise Architecture
- Understanding & Awareness

■ Project Management

- Agile Methodologies
- Software Cost Estimating
- Section 508 Compliance for PM & COR

SOFT SKILLS

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Soft Skills Development Opportunities

■ Business Acumen

- Technology Management
- Stakeholder Analysis

■ Building Coalitions

- Partnering
- Political Savvy
- Influencing / Negotiating
- Productive Team Member

■ Driving Results

- Accountability
- Customer Service
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■ Leading People

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- Have a Nice Conflict
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- Developing Others
- Team Building
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- Virtual Teamwork
- Building Trust in Teams
- Effective Team Leader
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- Soliciting Feedback

■ Leading Change

- Creativity & Innovation
- External Awareness
- Flexibility
- Resilience
- Strategic Thinking
- Vision

Related Skills & Knowledge Development Opportunities

- Fundamentals for Extracting Analytics from Video
- Robustness & Security
- Network Configuration & Troubleshooting Checklist
- Data Network Concepts
- Networking Charisma
- IT Program Management
- Product Evaluation
- IT Compliance
- Fundamentals of Internet Infrastructure Protection (IIP)
- The Agile Manifesto
- Lean Six Sigma Management
- Career Mobility
- Enterprise Licensing
- Integration Engineering
- Solution Architecture
- Systems Architecture
- Systems Integration



Applications Development Skills Development Program

Competencies include understanding and applying the IT systems development lifecycle involved in creating and maintaining applications and frameworks resulting in a software product.

CORE SKILLS

Systems Lifecycle and Systems Engineering, Business Analysis, Application Development Operations, Systems Testing and Evaluation

Core Skills Development Opportunities

■ Systems Lifecycle and Systems

Engineering

- Federal Enterprise Architecture & Systems Lifecycle
- Overview of Systems Lifecycle
- Systems Engineering Fundamentals
- IT Requirements Analysis

■ Business Analysis

- Developing a Business Analysis Work Plan
- Business Process Analysis
- Use of Case Modeling & Solution Requirements
- Essential Skills for Business Analysis

Core Skills Development Opportunities (cont.)

■ Application Development Operations

- Software Design Concepts
- Agile Requirements & Fundamentals
- Detailing Business Data Requirements
- Relational Database Concepts & Applications
- Overview of Software Development Methodologies

■ Systems Testing and Evaluation

- Fundamentals of Agile Methodologies, Processes, Systems, Tools, and Techniques
- Agile Testing

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Soft Skills Development Opportunities

■ Business Acumen

- Financial Management
- Human Capital Management
- Technology Management

■ Building Coalitions

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- External Awareness
- Flexibility
- Resilience
- Strategic Thinking
- Vision

Related Skills & Knowledge Development Opportunities

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Building Security
- Heuristic Designs (Based on Data Feeds)
- Internet of Everything
- Interoperability
- Open Standards
- Overview of Service-Oriented Architecture (SOA)
- Understanding the Tools and Techniques of the Internet
- An Overview of Open Standards and its Impact
- Processes, Systems, Tools, and Techniques for Data Heuristic Designs
- Introduction to Cryptography
- Starter Guide to Cybersecurity
- An Agile Information Technology Service Management (ITSM)
- Building Your Own Agile Branding
- Managing Knowledge



Data Management

Skills Development Program

Competencies include managing the development and execution of data architectures, policies, practices and procedures to deliver solutions for the information lifecycle needs of an enterprise.

CORE SKILLS

Data Architecture, Data Integration, Business Data, Big Data Administration, Data Analytics, Data Storage, Business Intelligence Tools Administration, Data Integration Tools Administration

Core Skills Development Opportunities

■ Data Architecture

- Conceptual / Business Model
- Data Modeling
- Logical / System Model
- Physical / Technology Model

■ Data Integration

- Introduction to Extract, Transfer, & Load (ETL) Tools
- Data Federation Technologies
- Data Quality, Data Validation Tools & Methodology
- Master Data Management
- Enterprise Content Management

Core Skills Development Opportunities (cont.)

■ Business Data

- Medicare Learning Network

■ Big Data Administration

- Cloudera Administrator Training for Apache Hadoop

■ Data Analytics

- Business Intelligence Tools Training such as:
 - MicroStrategy – Visual Insight Essentials; Report Services – Dashboard Developer; Web Report Developer
 - Statistical Analysis System – Enterprise Business Intelligence (SAS-EBI) Overview
 - Big Data Analytics – Cloudera Data Analyst Training such as HIVE, Impala, and Other Tools

■ Data Storage

- Introduction to Relational Database Management
- Integrated Data Repository (IDR) Overview
- Introduction to Data Warehouse
- Introduction to Big Data and Its Eco-systems

■ Business Intelligence Tools Administration

- MicroStrategy Administration
- COGNOS Administration
- SAS-EBI Administration

■ Data Integration Tools Administration

- Informatica / PowerCenter Administration

SOFT SKILLS

Business Acumen, Leading Change, Driving Results, Leading People, Building Coalitions

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■ Business Acumen

- Financial Management
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- Technology Management

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Soft Skills Development Opportunities (cont.)

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- Effective Team Leader
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■ Building Coalitions

- Partnering
- Political Savvy
- Influencing / Negotiating
- Productive Team Member

Related Skills & Knowledge Development Opportunities

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Data Policy (HIPAA, FOIA, Data Transparency)
- Federal Enterprise Architecture & Systems Lifecycle
- Release Management
- An Overview of Data Management
- IT Compliance Checklist
- Measuring the Unmeasurable
- Processes, Systems, Tools, and Techniques for Systems Testing and Evaluation
- Overview of System Lifecycle
- Understanding the Tools & Techniques in Enterprise Architecture
- Meet Molly: Your Customer in 2020
- Reverse Mentoring
- Where is the Knowledge?



IT Infrastructure Management Skills Development Program

Competencies include the ability to implement, maintain, reduce costs, enhance the data center operations, and improve overall effectiveness of networks, hardware, and software assets.

CORE SKILLS

Infrastructure Virtualization, IT Service Management, Cloud Computing, Data Storage Management, Video and Telecommunications, Mobile Computing, Data Center Operations and Management, IT Program and Project Management

Core Skills Development Opportunities

■ Infrastructure Virtualization

- Virtualization Fundamentals
- Virtualization Security
- Virtualization in Cloud
- Virtualization of Desktops

■ IT Service Management

- ITIL Foundation
- ITIL & Service Lifecycle
- Asset Management

Core Skills Development Opportunities (cont.)

■ Cloud Computing

- Cloud Enterprise Resource Planning (ERP) vs. Traditional ERP
- Cloud Computing Fundamentals
- Types of Cloud Models
- Cloud Computing Return on Investment (ROI)
- Cloud Service Offerings & Vendors
- Cloud Impact on Organization
- Cloud Security

■ Data Storage Management

- Storage Management Fundamentals
- Storage Management Architectures
- Storage Management Replication
- Storage Management High Availability
- Shared Network Storage

■ Video and Telecommunications

- Wireless Telecommunications Systems
- Computer Networks & Cybersecurity
- Unified Communications
- Voice Over IP (VOIP) Technologies
- Video Teleconference and Collaboration

■ Mobile Computing

- Mobile Device Management
- Email as a Service
- Virtual Desktop
- Mobile Device Security

■ Data Center Operations and Management

- Data Center Virtualization
- Greening the Data Center
- Secure Operations
- Change Management
- Service Desk Management
- Continuous Delivery and Monitoring

Core Skills Development Opportunities (cont.)

■ IT Program and Project Management

- Agile & Scrum Management
- LEAN Management
- CMS Expedited Lifecycle (XLC)
- PMI (PMP) Certification
- Federal Acquisition Certification for Program & Project Managers (FAC P / PM)

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Soft Skills Development Opportunities (cont.)

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Related Skills & Knowledge Development Opportunities

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Cybersecurity
- Security Compliance
- Cybersecurity: A Technical Approach
- Cybersecurity Management & Policy
- Software Development & Security
- Digital Forensics Investigation
- Cyber Incident Analysis & Response
- Understanding Your X, Y, & Z
- Reverse Mentoring
- Cloud Computing for 5-Year-Old
- Becoming an Intrapreneur
- The Art & Science of Empathy



Investment & Contract Management Skills Development Program

Competencies include managing contracts and budgets to maximize value of projects and investments, and identifying and minimizing any financial risk to the organization.

CORE SKILLS

Acquisition / Procurement Strategy, Price and Cost Analysis, Contracting Officer Representative / Government Task Lead (GTL), Federal IT Budgeting, IT Portfolio Management, IT Compliance

Core Skills Development Opportunities

■ Acquisition / Procurement Strategy

- Agile Acquisition 101: Means Behind Magic
- Fundamentals of Cost & Price Analysis

■ Price and Cost Analysis

- Cost-benefit Analysis
- Cost Realism
- Earned Value Management

Core Skills Development Opportunities (cont.)

■ COR / GTL

- Federal Acquisition Certification for Contracting Officer Representative (FAC-COR)
- Contracting Basics
- Contracting for Decision Makers
- Contract Management: Strategies for Mission Success
- Federal Appropriations Law

■ Federal IT Budgeting

- Federal IT Budget Execution
- Federal IT Budget Formulation
- Federal Appropriations Law

■ IT Portfolio Management

- IT Compliance
- Capital Planning & Investment Control (CPIC)
- Federal IT Acquisition Reform Act

■ IT Compliance

- Risk & Information Systems Control (RISC)
- Governance of Enterprise IT (GEIT)
- Risk Management Assurance (RMA)

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- Applied Project Management for Federal Government
- The Power of Relationships
- Earned Value Management
- Project & Program Management
- Systems Development Lifecycle



Business Operations

Skills Development Program

Competencies include managing and optimizing all administrative operations and human resource functions of the organization.

CORE SKILLS

Time and Attendance, Training Coordination, Enterprise User Administration (EUA), Facilities and Space, HR Liaison, Travel (FATA) Liaison, Administrative Budget

Core Skills Development Opportunities

■ Time and Attendance

- ITAS on the Job Training

■ Training Coordination

- LMS on the Job Training

■ Enterprise User Administration

- Enterprise User Administration (EUA) Training

■ Facilities and Space

- CATA COVD System Training

■ HR Liaison

- Merit Systems Principles / Prohibited Personnel
- Federal Employee Relations
- Federal Employee Certificate Program
- Veterans Preference
- Resume Writing Workshop
- Qualifications Analysis
- Best Practices & Assessment Dev

Core Skills Development Opportunities (cont.)

■ Travel (FATA) Liaison

- Travel Training for Travelers & Preparers (Part 1)
- Travel Training for Travelers & Preparers (Part 2)
- Travel Training for Certifiers & Approvers

■ Administrative Budget

- Introduction to Federal Budget
- Budget Under Control System (BUCS) Reports on the Job Training
- Credit Card Roll up on the Job Training

SOFT SKILLS

Business Acumen, Building Coalitions, Driving Results, Leading Change, Leading People

To access the LMS learning portal visit <https://ams.hhs.gov>, Select HHS Learning Portal, under Open Access Internet, Scroll down to Catalog Search, and Search by course name.

To view Soft Skills Courses offered by the CMS Leadership Institute (CMSLI), view the catalog at <http://intranet.cms.gov/Component/OOM/DTD/PDF/CMS-Leadership-Institute-Catalog.pdf>.

Soft Skills Development Opportunities

■ Business Acumen

- Financial Management
- Human Capital Management
- Technology Management

■ Building Coalitions

- Partnering
- Political Savvy
- Influencing / Negotiating
- Productive Team Member

Soft Skills Development Opportunities (cont.)

■ Driving Results

- Accountability
- Customer Service
- Decisiveness
- Problem Solving
- Technical Credibility
- Becoming Customer Focused
- Business Writing
- Writing for Clarity & Impact
- Effective Meetings
- Effective Presentations
- Emotional Intelligence
- Problem Solving & Decision Making
- Time Management

■ Leading Change

- Creativity & Innovation
- External Awareness
- Flexibility
- Resilience
- Strategic Thinking
- Vision

■ Leading People

- Conflict Resolution
- Have a Nice Conflict
- Leveraging Diversity
- Developing Others
- Team Building
- Crucial Conversations
- Virtual Teamwork
- Building Trust in Teams
- Effective Team Leader
- Exercising Influence
- Soliciting Feedback

Related Skills & Knowledge Development Opportunities

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint



IT Service Management Skills Development Program

Competencies include deploying and maintaining IT services that satisfy business goals, technical requirements, and functional needs.

CORE SKILLS

Service Design, Service Support, Service Delivery, Relationship Management, Program Management

Core Skills Development Opportunities

■ Service Design

- ITIL Foundation
- ITIL & the Service Lifecycle
- ITIL Managing Across the Lifecycle (MALC)

■ Service Support

- Configuration Management
- Change Management
- Release Management
- Incident Management
- Problem Management
- Performance Testing
- Information Security Management

Core Skills Development Opportunities (cont.)

■ Service Delivery

- Availability Management
- Capacity Management
- Service Continuity Management
- Continual Service Improvement
- Project Management

■ Relationship Management

- Service Level Management
- Service Desk Management
- Service Provider Management
- Business Relationship Management

■ Program Management

- Budget Development
- Acquisition Planning & Execution
- Contract Management
- Financial Management
- Federal Appropriations Law

SOFT SKILLS

Business Acumen, Building Coalitions, Leading People, Driving Results, Leading Change

To access the LMS learning portal visit <https://ams.hhs.gov>, Select HHS Learning Portal, under Open Access Internet, Scroll down to Catalog Search, and Search by course name.

To view Soft Skills Courses offered by the CMS Leadership Institute (CMSLI), view the catalog at <http://intranet.cms.gov/Component/OOM/DTD/PDF/CMS-Leadership-Institute-Catalog.pdf>.

Soft Skills Development Opportunities

■ Business Acumen

- Financial Management
- Human Capital Management
- Technology Management

■ Building Coalitions

- Partnering
- Political Savvy
- Influencing / Negotiating
- Productive Team Member

■ Leading People

- Conflict Resolution
- Have a Nice Conflict
- Leveraging Diversity
- Developing Others
- Team Building
- Crucial Conversations
- Virtual Teamwork
- Building Trust in Teams
- Effective Team Leader
- Exercising Influence
- Soliciting Feedback

■ Driving Results

- Accountability
- Customer Service
- Decisiveness
- Problem Solving
- Technical Credibility
- Becoming Customer Focused
- Business Writing
- Writing for Clarity & Impact
- Effective Meetings
- Effective Presentations
- Emotional Intelligence
- Problem Solving & Decision Making
- Time Management

■ Leading Change

- Creativity & Innovation
- External Awareness
- Flexibility
- Resilience
- Strategic Thinking
- Vision

Related Skills & Knowledge Development Opportunities

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Agile Business Analysis
- Earned Value Management
- Government Contracting
- Lean vs. Agile
- Effective Writing
- Fundamentals of Earned Value Management
- Processes, Systems, Tools, & Techniques
- Implementing Lean-Agile for Business & Operations
- Introduction to Contract Pricing
- Legal Considerations in Contracting
- Becoming a Scrum Master in 60 Minutes
- Building Your Own Agile Branding
- Collaboration Revolution

Frequently Asked Questions

- a) What is the IT Skills Development Programs Catalog?
- b) Why is the IT Skills Development Programs Catalog valuable to my professional development?
- c) What are the IT Skills Development Programs within the catalog?
- d) How are the IT Skills Development Programs structured?
- e) Are there any costs and fees associated with taking advantage of these development opportunities?
- f) How do I locate development opportunities?
- g) How do I access the development opportunities in the LMS?
- h) How do I provide feedback on the IT Skills Development Programs development opportunities?
- i) Who should I contact if I have technical or connection issues with my laptop or internet browser?
- j) How often will the development opportunities in the catalog be updated?
- k) What are the benefits of the IT Skills Development Programs Catalog?
- l) What is the process for registering for the development opportunities?
- m) How can I obtain a certificate for completed development opportunities?
- n) Will all skills development opportunities show in my LMS profile after I complete a development opportunity?
- o) Are the development opportunities linked to my PD and/or performance reviews?

- p) Can I receive Continuous Learning Points (CLP) for a completed development opportunity? If so, how many?
- q) How do I find out about mentoring opportunities?
- r) Do these IT Skills Development Programs include rotational assignments?
- s) Do these IT Skills Development Programs include job shadowing?
- t) I am interested in a development opportunity that requires travel. What is the process for requesting travel?
- u) If I earn a professional certification from completing the development opportunity, will the certification fee be paid by CMS?
- v) The course that I am interested in completing is not listed in the IT Skills Development Programs Catalog. How can I request additional information for the course?
- w) The development opportunity includes a membership fee. Is the cost of membership fees paid for specific courses?
- x) I am interested in completing a prep course that has a test associated with it. Does the prep course cover the cost of the test?

FAQ Answers

a) What is the IT Skills Development Programs Catalog?

The IT Skills Development Programs Catalog is a guide to planning your skills development path. The catalog outlines many resources to learn, develop, enhance, and maintain your skills and competencies, categorized by general program areas.

b) Why is the IT Skills Development Programs Catalog valuable to my professional development?

Using this catalog along with your Individual Development Plan (IDP) can assist you in enhancing your professional skills and your personal growth opportunities.

c) What are the IT Skills Development Programs within the catalog?

There are nine (9) IT Skills Development Programs outlined:

1. Policy / Planning & Technology Management (PPTM)
2. Information Security (IS)
3. Enterprise / Systems Architecture (ESA)
4. Applications Development (AD)
5. Data Management (DM)
6. IT Infrastructure Management (IFM)
7. Investment & Contract Management (ICM)
8. Business Operations (BO)
9. IT Service Management (ITSM)

Individually, these 9 IT Skills Development Programs have similar competencies (competencies are a combination of knowledge, skills, abilities, and behaviors that contribute to individual and organizational performance). These competencies are mapped to the National Institutes of Health / Office of Personnel Management (NIH / OPM) competencies for IT professionals.

d) How are the IT Skills Development Programs structured?

Each program contains 3 development opportunity categories:

- **Core Skills Development Opportunities** – Each program has a set of integrated, core skills that strengthen competencies within a specialized area.
- **Soft Skills Development Opportunities** – Each program has a set of soft skills that complement technical skills, support productive workplace performance, and strengthen interpersonal competencies.
- **Related Skills and Knowledge Development Opportunities** – These development opportunities are other resources available to strengthen proficiency levels and obtain related skills and knowledge relevant to identified core and soft skills competencies.

e) Are there any costs and fees associated with taking advantage of these development opportunities?

The development opportunities are a mixture of paid and free services. Talk with your supervisor before selecting the appropriate opportunities for your personal and professional development.

f) How do I locate development opportunities?

1. Search CMS Leadership Institute Catalog
2. Use training links in Appendix A
3. Search Learning Management System (LMS) learning portal
4. Search internet using core skills terms listed in catalog

g) How do I access the development opportunities in the LMS?

If you are interested in a development opportunity, contact your supervisor for more information. Upon approval from your supervisor, you may access the training. Check the LMS learning portal to see if the training opportunity is listed. If it is listed, log into the LMS learning portal and select the development opportunity you are interested in

completing. To access the LMS learning portal visit <https://ams.hhs.gov>, Select HHS Learning Portal, under Open Access Internet, Scroll down to Catalog Search, and Search by course name. To view Soft Skills Courses offered by the CMS Leadership Institute (CMSLI), view the catalog at <http://intranet.cms.gov/Component/OOM/DTD/PDF/CMS-Leadership-Institute-Catalog.pdf>.

h) How do I provide feedback on the IT Skills Development Programs development opportunities?

Employees participating in an OTS IT Skills Development Program, regardless of the development opportunity delivery method, will be provided with an End-of-Development Opportunity (EOD) survey. These surveys are necessary for measuring and improving our learning assets to ensure we meet workforce demands.

i) Who should I contact if I have technical or connection issues related to my laptop or internet browser?

If you are experiencing technical or connection issues related to your laptop or internet browser, please contact the IT Helpdesk at 410-786-2580.

j) How often will the development opportunities in the catalog be updated?

The IT Skills Development Programs Catalog will be updated on an annual basis.

k) What are the benefits of the IT Skills Development Programs Catalog?

Each IT Skills Development Program categorizes the vast work of IT Specialists into more specialized areas of focus. By looking across the programs, IT Specialists can identify areas of interest and find the essential competencies and development opportunities to enhance your existing skills for personal development.

l) What is the process for registering for the development opportunities?

If there is a course that requires registration, please speak with your supervisor to gain approval. After you receive approval, follow the steps listed on the course website to register.

m) How can I obtain a certificate for completed development opportunities?

If the course is listed in your LMS profile, please click on “print certificate” to obtain a course certificate. If the course was taken through an alternate website and it is not listed in your LMS profile, please contact the vendor or course contact to obtain a certificate.

n) Will all skills development opportunities show in my LMS profile after I complete a development opportunity?

Yes, if the courses were registered within LMS they will show in your LMS profile under completed courses. For OTS staff, if a course was taken through an alternate website or vendor, please scan and send a copy of your completed SF-182 to ots_training@cms.hhs.gov.

Note: Section F in the SF-182 must be completed and signed by your supervisor.

o) Are the development opportunities linked to my PD and/or performance reviews?

No, the development opportunities listed in this catalog are not linked to your performance reviews. Please speak with your manager for questions regarding your individual PD and performance reviews.

p) Can I receive Continuous Learning Points (CLP) for a completed development opportunity? If so, how many?

CLPs can be earned on a case-by-case basis, depending on the course. Please speak with the course contact to receive additional information.

q) How do I find out about mentoring opportunities?

Please speak with your manager to learn more about mentoring opportunities.

r) Do these IT Skills Development Programs include rotational assignments?

Please speak with your supervisor to learn more about rotational assignments within OTS and CMS.

s) Do these IT Skills Development Programs include job shadowing?

Please speak with your supervisor to learn more about job shadowing opportunities within OTS and CMS.

t) I am interested in a development opportunity that requires travel. What is the process for requesting travel?

Please work with your supervisor and Group's front office on details regarding travel.

u) If I earn a certification from completing the development opportunity, will the certification fee be paid by CMS?

The government does not pay for certifications that are not stated as a requirement of your Position Description (PD). If an employee desires to complete a certification, it is the employee's responsibility to pay for and work toward obtaining that specific certification.

v) The course that I am interested in completing is not listed in the IT Skills Development Programs Catalog. How can I request additional information for the course?

Please work with your supervisor and Group's front office on details regarding courses that are not listed.

w) The development opportunity includes a membership fee. Is the cost of membership fees paid for specific courses?

Membership fees are not paid for development opportunities that are not listed as a requirement within your PD. Membership fees are the employee's responsibility.

x) I am interested in completing a prep course that has a test associated with it. Does the prep course cover the cost of the test?

Tests associated with prep courses are not paid for unless the courses are listed as a requirement within your PD. Test fees are the employee's responsibility.

Glossary

Skills Development Program Definitions

- **Applications Development (AD)** – Manages the IT systems development lifecycle to create and maintain applications and frameworks resulting in a software product.
- **Business Operations (BO)** – Manages and optimizes the day-to-day administrative and human resource functions of the organization.
- **Data Management (DM)** – Manages the development and execution of data architectures, policies, practices and procedures to deliver solutions for the information lifecycle needs of an enterprise.
- **Enterprise / Systems Architecture (ESA)** – Manages the intersection between business and technology to deliver the overarching technology architecture of the organization. Manages the foundation for building and evolving all IT systems.
- **Information Security (IS)** – Manages the protection of information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction to provide confidentiality, integrity, and availability. Manages IT security implications within the organization.
- **Investment & Contract Management (ICM)** – Manages project and investment contracts and budgets to maximize value, and identifies and minimizes any financial risk to the organization.
- **IT Infrastructure Management (IFM)** – Manages, implements, maintains, reduces costs, enhances data center operations, and improves overall effectiveness of networks, hardware, and software assets.
- **IT Service Management (ITSM)** – Deploys and maintains IT services that satisfy business goals, technical requirements, and functional needs.

- **Policy / Planning & Technology Management (PPTM)** – Manages technology programs that fulfill business needs including acquisition, budget, systems lifecycle, and policy considerations.

Competency Definitions

- **Business Acumen** – Ability to manage human, financial, and information resources strategically.
- **Building Coalitions** – Ability to build coalitions internally and with other Federal agencies, state and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve common goals.
- **Business Process Analysis** – Knowledge of methods, metrics, tools, and techniques of business process reengineering.
- **Business Requirements Gathering & Analysis** – Knowledge of the principles and methods to identify, analyze, specify, design, and manage functional and infrastructure requirements; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.
- **Capital Planning & Investment Control (CPIC)** – Knowledge of the principles and methods of Federal IT capital investment analysis or business case analysis, including return on investment analysis.
- **Change Management** – Knowledge of processes to help control the lifecycle of strategic, tactical, and operational changes through standardized procedures that control risk and minimize disruption to associated IT services and business operations.

- **Configuration Management** – Knowledge of the principles and methods for planning or managing the implementation, update, or integration of information systems components.
- **Continual Service Improvement (CSI)** – Knowledge of processes to align and realign IT services to changing business needs by identifying and implementing improvements to the IT services that support the business.
- **Contracting / Procurement** – Knowledge of various types of contracts, techniques for contracting or procurement, and contract negotiation and administration.
- **Cost-Benefit Analysis** – Knowledge of the systematic approach to determine if an investment / decision is sound and to estimate the strengths / weaknesses of alternatives. Used to select or justify the best approach to achieve benefits while minimizing costs.
- **Data Management** – Knowledge of the principles, procedures, and tools of data management, such as modeling techniques, data backup, data recovery, data dictionaries, data warehousing, data mining, data disposal, and data standardization processes.
- **Driving Results** – Knowledge, enthusiasms and desire to meet and exceed objectives, organization's targets and improve one's own performance.
- **Enterprise Architecture** – Knowledge of principles, concepts, and methods of enterprise architecture to align IT strategy, plans, and systems with the mission, goals, structure, and processes of the organization.
- **Facilities and Space Administration** – Assesses and coordinates the acquisition, use, and maintenance of facilities and space; based on organizational goals, budget realities, safety and security needs, and guidance and requirements.

- **Human Resources Management** – Plans, distributes, coordinates, and monitors work assignments of others; evaluates work performance and provides feedback on performance; ensures that staff are appropriately selected, utilized, and developed, and that they are treated in a fair and equitable manner.
- **Information Assurance** – Knowledge of methods and procedures to protect information systems and data by ensuring their availability, authentication, confidentiality, and integrity.
- **Information Resources Strategy and Planning** – Knowledge of the principles, methods, and techniques of IT assessment, planning, management, monitoring, and evaluation, such as IT baseline assessment, interagency functional analysis, contingency planning, and disaster recovery.
- **Information Systems / Network Security** – Knowledge of methods, tools, and procedures, including development of information security plans, to prevent information systems vulnerabilities, and provide or restore security of information systems and network services.
- **Information Systems Security Certification** – Knowledge of the principles, methods, and tools for evaluating information systems security features against a set of specified requirements. Includes developing certification and accreditation plans and procedures, documenting deficiencies, reporting corrective actions, and recommending changes to improve security of information systems.
- **IT Architecture** – Knowledge of architectural methodologies used in the design and development of information systems, including the physical structure of a system's internal operations and interactions with other systems.

- **IT Program Management** – Knowledge of the principles, methods, and tools for the coordinated management of an IT program to include providing oversight of multiple IT projects, integrating dependent schedules and deliverables, and performing related activities (i.e., benefits management, lifecycle management, program governance).
- **Infrastructure Design** – Knowledge of the architecture and typology of software, hardware, and networks, including LANS, WANS, and telecommunication systems, their components and associated protocols and standards, and how they operate and integrate with one another and associated controlling software.
- **IT Acquisition Strategy** – Knowledge of the principles and methods for developing an integrated acquisition management plan that describes the business, technical, and support strategies, including the relationship between the acquisition phases, work efforts, and key program events (e.g., decision points, contract awards, test activities).
- **IT Compliance** – Knowledge of procedures for assessing, evaluating, and monitoring programs or projects for compliance with Federal laws, regulations, and guidance.
- **Labor Relations** – Understanding and demonstrating knowledge of laws, rules, regulations, case law, principles, and practices related to negotiating and administering labor agreements.
- **Leading Change** – Ability to bring about strategic change, both within and outside the organization, to meet organizational goals.
- **Leading People** – Ability to lead people toward meeting the organization's vision, mission, and goals.
- **Office Administration** – Applies knowledge of support principles, practices, policies and processes to ensure effective and efficient administrative operations.

- **Product Evaluation** – Knowledge of methods for researching and analyzing external products to determine their potential for meeting organizational standards and business needs.
- **Results Driven** – Ability to meet organizational goals and customer expectations.
- **Risk Management** – Knowledge of methods and tools used for risk assessment and mitigation, including assessment of failures and their consequences.
- **Service Delivery** – Includes design, development, delivery of services, overall strategy, scope, services catalog, transition, and improvement.
- **Service Governance** – Includes design, development, and operation of the organization structures and procedures to oversee and manage service delivery demand, performance, and risk.
- **Service Improvement** – Aims to continually improve the effectiveness and efficiency of IT processes and services, in line with the concept of a continual improvement model.
- **Service Processes** – Includes design, development, and operation of the processes and procedures required for service delivery based on industry standards.
- **Service Technology** – Includes design, development, and operation of the technical tools and components required for the delivery of service.
- **Systems Engineering** – Knowledge of the practice of integrating multiple disciplines into a system as part of a structured development process throughout a system's lifecycle.
- **Systems Development Lifecycle (SDLC)** – Knowledge of work phases used to plan, design, develop, test, implement, operate, and maintain information systems.

- **Systems Testing and Evaluation** – Knowledge of principles, methods, and tools to compare systems or components against requirements and specifications. Results are evaluated to assess progress, performance and quality.
- **Technology Awareness** – Knowledge of developments and new applications of IT (e.g., hardware, software, telecommunications), emerging technologies and their applications to business processes, and applications and implementation of information systems to meet organizational requirements.

Additional definitions are located on the OPM website: <https://www.opm.gov/policy-data-oversight/senior-executive-service/executive-core-qualifications/>

Appendix A: Other Learning Opportunities

Note: The availability of the learning options below may require an approval from your supervisor. Course links are based on currently available information and may change over time.

CMS INTERNAL INFORMATION

- Medicare Learning Network
- CM Seminar Archived Presentations
- CMS Outreach and Education
- CMS Learning Management System
- CMS Strategy Management Framework

VIDEOS

- CMS HHS YouTube Channel
- Getting to Know CMS
- OTS at CMS
- CMS Enterprise Architecture
- Medicare 101
- Medicaid Enterprise Certification Toolkit
- CMSzONE
- Healthcare 101
- Application Helpdesk Interface
- Helpdesk Assistance with Multi Factor Authentication Services
- Requesting a New CMS Enterprise Portal Account
- Basic Data Mining and Analysis for Program Integrity

- Using Provider Enrollment, Chain, and Ownership System (PECOS)
- Data Medicare 101
- Introduction to CMS eHealth
- Introduction to Administrative Simplification
- Accountable Care Organizations Overview
- CMS Live YouTube Playlist

TEDTALKS

- The Mind Behind Linux
- Applying Big Data to Little Patients
- Medicine's future? There's an app for that
- A Headset that Reads your Brainwaves
- Code: The Next Universal Language
- The Happy Secret to Better Work
- The Best Stats You've Ever Seen
- The Big-Data Revolution in Healthcare
- Let's Pool our Medical Data
- The Wireless Future of Medicine
- It's Time to Redesign Medical Data
- How to Make Stress your Friend
- How to Save the World (or at least yourself) from Bad Meetings
- How Arduino is Open-Sourcing Imagination
- The Year Open Data Went Worldwide
- Massive-Scale Online Collaboration

- The Currency of the New Economy is Trust
- The Era of Open Innovation

CODING ACADEMIES

Note: Some of these courses may require a paid subscription, please contact your supervisor for approval.

- Actualize
- Bloc
- Codecademy
- Code Fellows
- Coder Camps
- Coder Foundry
- Codeup
- Coding Dojo
- Designation
- Dev Bootcamp
- Dev League
- Epicodus
- Founders and Coders
- Fullstack Academy
- Grand Circus
- Hackbright Academy
- Hack Reactor
- Ironhack

- Launch Academy
- Le Wagon
- Lighthouse Labs
- Makers Academy
- Skilled up for Learners
- Software Craftsmanship Guide
- Starter League
- Startup Institute
- Tech Talent South
- The Flatiron School
- The Iron Yard
- Thinkful
- V School

OTHER LEARNING PLATFORMS

■ Free Subscription with Email Sign Up

- SafeCode
- Coursera
- Khan Academy
- Learning Circle
- Academic Earth
- Udacity
- Eliademy
- OpenHPI

- [EdX](#)
- [Iversity](#)
- [FutureLearn](#)
- [NovoEd](#)
- [Coursmos](#)
- [OpenUniversities](#)

■ **Paid Subscription Required**

- [CloudSchool](#)
- [Canvas Network](#)

■ **Free and Paid Subscription**

- [CloudAcademy](#)
- [OpenClassrooms](#)
- [OneMonth](#)
- [Kadenze](#)

■ **Miscellaneous**

- [Defense Acquisition University Online](#)
- [Federal Acquisition Institute Training](#)
- [Healthcare Information and Management Systems Society](#)