



RESEARCH  
AND ENGINEERING

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

3030 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3030

MAY 13 2015

MEMORANDUM FOR PRESIDENT, DEFENSE ACQUISITION UNIVERSITY

SUBJECT: Fiscal Year (FY) 2016 Annual Certification – Engineering (ENG) and Production, Quality, and Manufacturing (PQM) Acquisition Career Field(s)

REF: DoDI 5000.66, Operation of the Defense Acquisition, Technology, and Logistics Workforce Education, Training, and Career Development Program

As the Under Secretary of Defense, Acquisition, Technology and Logistics (USD(AT&L)) functional leader for the subject career fields, and as required by the reference, I certify that for FY 2016:

- **Workforce Competencies:** The acquisition related competencies currently maintained by the Defense Acquisition University (DAU) for ENG and PQM reflect the knowledge and skills required to be successful as an acquisition workforce member.
- **Training Curriculum:** DAU course documentation, content, and learning objectives to be implemented in FY 2016 are acceptable. The course documentation and content for both ENG and PQM is undergoing revisions to accommodate updates to Department policy and will be fully deployed in first quarter FY 2017.
- **Certification Standards:** No changes were made to the ENG certification standards. Minor changes were made to the PQM certification standards for FY 2016 and are applicable to all DoD AT&L workforce personnel desiring PQM certification after September 30, 2015.
- **Position Category Descriptions (PCD):** Minor changes to the ENG and PQM PCDs were made for FY 2016. These are valid for DoD acquisition workforce personnel workforce being coded to ENG or PQM.

My goal is to improve program success through the application of sound and rigorous engineering, production, quality, and manufacturing practices. As my staff continues to regularly evaluate the training curriculum, workforce competencies, certification standards, and position category descriptions, we will continue to seek DAU's participation in the ENG and PQM Functional Integrated Process Teams' efforts.

My point of contact regarding this certification is Ms. Aileen Sedmak who can be reached by phone at (703) 695-6364 or by e-mail at [aileen.g.sedmak@mail.mil](mailto:aileen.g.sedmak@mail.mil).

A handwritten signature in black ink, appearing to read 'SP Welby', written in a cursive style.

Stephen P. Welby  
Deputy Assistant Secretary of Defense  
Systems Engineering

**AT&L Workforce Position Category Description (PCD)**

**Career Field:** Engineering  
**Career Path:** N/A  
**Short Title:** ENG  
**Category Code:** S                      **Ref:** (a) DoDD 5000.52 dtd 12 Jan 2005  
**Date Approved:** 7 May 2014                      (b) DoDI 5000.66 dtd 21 Dec 2005  
**Last Reviewed:** 7 May 2014                      (c) DoD Desk Guide for AT&L Workforce Career Management dtd 10 Jan 2006

**Notes:**

1. This PCD is intended to assist in determining which AT&L career field/path to assign to an AT&L position per Title 10 sec. 1721. If 50% or more of the duties and responsibilities of the position match the "General Acquisition-Related Duties" described below AND the preponderance of those duties match the "AT&L Career Field/Path Specific Duties" described below, assign the position to this position category.
2. All acquisition positions require management attention with respect to certification requirements and individual development. See reference (c).
3. Critical Acquisition Position (CAPs) are a subset of acquisition positions and Key Leadership Position (KLPs), are a subset of CAPs. Both CAPs and KLPs represent positions with responsibility and authority that are critical to the success of a program or effort. These positions require management attention with respect to Acquisition Corps membership, tenure and other specific statutory requirements. See reference (c).

**General Acquisition Related Duties:** The conceptualization, initiation, oversight, design, development, test, contracting, production, deployment, logistical support, modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy DoD needs, intended for use in, or in support of, military missions.

**AT&L Career Field/Path Specific Duties:** Plan, manage, monitor/oversee, or perform analysis, research, design, development, fabrication, installation, modification, or sustainment of systems of systems, systems, or systems components across the entire life cycle;

Applies and/or monitors/oversees one or more of the DoD Systems Engineering Technical Processes or Technical Management Processes (See Defense Acquisition Guidebook, Chapter 4, Section. 4.3) for a specific domain (analytic or engineering specialty) at a system of systems, system, subsystem or component level.

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|---|---|
| <p><b>Technical Processes:</b></p> <ul style="list-style-type: none"> <li>• stakeholders requirements definition</li> <li>• requirements analysis</li> <li>• architectural design</li> <li>• implementation</li> <li>• integration</li> <li>• verification</li> <li>• validation</li> <li>• transition</li> </ul> | <p><b>Technical Management Processes:</b></p> <ul style="list-style-type: none"> <li>• decision analysis</li> <li>• technical planning</li> <li>• technical assessment</li> <li>• requirements management</li> <li>• risk management</li> <li>• configuration management</li> <li>• technical data management</li> <li>• interface management.</li> </ul> |
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**Typical Line and Staff Position Titles:** Project officer, project engineer, scientist, supervising project engineer, computer engineer/scientist, operations research analyst, software engineer, naval architect, specialty engineers such as materials or structures engineer, reliability engineer, design engineer, cost engineer, etc.

**Comment [MAA1]:** Upon DAU recommendation, added "etc" in lieu of changing list.

**Typical Position Locations:** Acquisition organizations within the service components (i.e., Systems Commands, Materiel Commands, DRPMs, PEOs, as well as organizations/field activities directly supporting such organizations). Other DoD Components, Agencies and OSD/Service/HQ staff elements performing/supporting acquisition related functions such as: DCMA; research, development, and engineering centers and laboratories; manufacturing and maintenance centers and facilities.

**Typical Career Codes:**

Civilian Personnel	Uniformed Personnel				
	OCC Series	Army AOC	Navy AQD	Air Force AFSC	Marine Corps MOS
08xx	51S		ASx	61X	8057 8020 8852
13xx				62EX	8058 8024 8858
15xx					8059 8846
					8061 8848

**Recommended Changes/Updates:** Forward to: Director, Learning Capabilities Integration Center (Attn: Dir, Academic Programs), Defense Acquisition University, 9820 Belvoir Road, Suite 3, Fort Belvoir, VA 22060-5565 or call 703-805-4090

### AT&L Workforce Position Category Description (PCD)

**Career Field:** Production, Quality & Manufacturing  
**Career Path:** Not Specified  
**Short Title** PQM  
**Category Code:** H                      **Ref:** (a) DoDD 5000.52 dtd 12 Jan 2005  
**Date Approved:** 7 May 2014                      (b) DoDI 5000.66 dtd 21 Dec 2005  
**Last Reviewed:** 7 May 2014                      (c) DoD Desk Guide for AT&L Workforce Career Management dtd 10 Jan 2006

#### Notes:

1. This PCD is intended to assist in determining which AT&L career field/path to assign to an AT&L position per Title 10 sec. 1721. If 50% or more of the duties and responsibilities of the position match the "General Acquisition-Related Duties" described below AND the preponderance of those duties match the "AT&L Career Field/Path Specific Duties" described below, assign the position to this position category.
2. All acquisition positions require management attention with respect to certification requirements and individual development. See reference (c).
3. Critical Acquisition Positions (CAPs) are a subset of acquisition positions and Key Leadership Positions (KLPs), are a subset of CAPs. Both CAPs and KLPs represent positions with responsibility and authority that are critical to the success of a program or effort. These positions require management attention with respect to Acquisition Corps membership, tenure and other specific statutory requirements. See reference (c).

**General Acquisition Related Duties:** The conceptualization, initiation, design, development, test, contracting, production, deployment, logistical support, modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy DoD needs, intended for use in, or in support of, military missions.

**AT&L Career Field/Path Specific Duties:** The specific duties fall into one or both of the following categories within this career field:

#### Production & Manufacturing:

- Monitors and/or manages the manufacturing and production efforts at industry or Government facilities throughout the system acquisition process.
- Assesses and reports on the availability of resources for production and realistic industry approaches to manufacturing and supply chain management.
- Conducts feasibility assessments of risk during transition period and throughout the acquisition process.
- Provides advice, assistance and recommendations to support "make" or "buy" decisions and alternative production processes.
- Performs production/manufacturing surveillance/oversight of Defense Contractors, and their associated production/service sub-contractors, and organic/inorganic Industrial Base activities, which provide supplies and/or services. This includes reviews during both pre-award and post-award activities (e.g., proposal review, post-award conferences). (to include Contractor proposal reviews).
- Performs Industrial Base capability and capacity studies.

#### Quality Assurance:

- Manages Quality Assurance (QA) processes to establish essential quality standards and controls.
- Develops, executes and evaluates policies, procedures, plans and test provisions for QA requirements throughout the various phases of the systems acquisition cycle.
- Ensures QA plans are integrated into the systems engineering process.
- Performs process and product-oriented reviews and audits to ensure compliance with QA requirements
- Provides expert support and guidance on QA-related matters to other program office and in-plant functional acquisition personnel.
- Accepts and fields Materiel for U.S. and foreign customers.
- Performs Data Collection and Analysis related to quality of manufacturing and production along with executive process performance and process capability analysis.
- Prepare sampling plans to assure Product Quality for materiel acceptance.
- Participates in Material Review Boards and Corrective Action Boards to assist in the identification of, root cause analysis, and corrective action for the disposition of non-conforming materiel. This includes activities such as participating in Material Review Boards and/or Corrective Action Boards, and processing Product Quality Deficiency Reports.
- Conducts Cost of Poor Quality Studies for continual improvement.

#### Typical Line and Staff Position Titles:

**Production & Manufacturing:** Supervisory, Production, Manufacturing, Industrial Engineer; Production Management, Industrial Specialist; Production Officer; General, Aerospace, Mechanical Engineer, etc.

**Quality Assurance:** QA Supervisor, Representative, or Staff Specialist; Mathematical Statistician, QA Engineer, Supervisory and/or Quality Engineer, Supervisory and/or General Engineer, Pharmacist, Physical Scientist, Chemist, Electronic Technician, Product Line Specialist (PLS), QA Director/ Chief (Division, Branch or Section); QA Surveillance

**Comment [KW1]:** Updated to include missing government function at organic / inorganic industrial bases (i.e. – depots, arsenals, etc.) and activities (i.e. – manufacturing repair, overhaul, etc.)

**Comment [KW2]:** Updated to clarify and reflect QA responsibilities related to production quality deficiency reports

**Comment [KW3]:** Upon DAU request, updated to add "etc." in lieu of changing list

Representative/Specialist, Engineer Technician, Entomologist, Computer Specialist, Product Auditor; Aircraft, Aerospace, Ammunition, Automotive, Chemicals, Clothing, Electronics, Materiel, Mechanical, Medical, Nuclear, Processes, Shipbuilding, Computer Software, or Subsistence, etc.

**Comment [KW4]:** Upon DAU request, updated to add "etc." in lieu of changing list

**Typical Position Locations:** Acquisition organizations within the service components (i.e., Systems Commands, Materiel Commands, DRPMs, PEOs, as well as organizations/field activities directly supporting such organizations). Other DoD Components, Agencies and OSD/Service/HQ staff elements performing/supporting acquisition related functions such as DCMA, DLA and plant offices and component program offices.

**Typical Career Codes:**

Civilian Personnel		Uniformed Personnel				
OCC Series	Army AOC	Navy AQD	Air Force AFSC	Marine Corps MOS		
03xx 1910	51A	AGx	62	8057	8060	8862
08xx	51C		63	8058	8061	
11xx				8059	8858	

**Recommended Changes/Updates:** Forward to: Director, Learning Capabilities Integration Center (Attn: Dir, Academic Programs), Defense Acquisition University, 9820 Belvoir Road, Suite 3, Fort Belvoir, VA 22060-5565 or call 703-805-4090

**CERTIFICATION STANDARDS & CORE PLUS DEVELOPMENT GUIDE  
PRODUCTION, QUALITY AND MANUFACTURING LEVEL I**

Type of Assignment	Representative Activities
Engineer	<ul style="list-style-type: none"> <li>● Establishes production planning and control process and measures the overall effectiveness of the organization, methods, systems, and procedures.</li> <li>● Builds producibility into designs (tooling, facilities and products).</li> <li>● Builds quality characteristics into the designs of products and services.</li> </ul>
Industrial Specialist	<ul style="list-style-type: none"> <li>● Develops and carries out plans for the expansion, conversion, integration or utilization of industrial production facilities and conducts surveys of industrial plants to determine capacity and potential for production of specific commodities.</li> <li>● Performs production surveillance/oversight of Defense contractors providing services or supplies (to include Contractor proposal reviews) based on mission and function of each agency and local organization.</li> <li>● Performs Industrial Base studies for capability and capacity.</li> <li>● Participates in Pre and Post award conferences as subject matter experts.</li> </ul>
Quality Assurance Specialist	<ul style="list-style-type: none"> <li>● Ensures the proper quality characteristics have been integrated into the products and validates/verifies adherence to specified requirements through test and measurement.</li> <li>● Performs quality assurance surveillance/oversight of Defense contractors providing services or supplies (to include Contractor proposal reviews) based on mission and function of each agency and local organization.</li> <li>● Performs Industrial Base studies for quality management.</li> <li>● Participates in Pre and Post award conferences as subject matter experts.</li> </ul>
Business/Industrial Specialist	Performs planning, estimating, scheduling, or expediting the use of labor, machines, and materials in manufacturing operations producing equipment, systems, facilities, supplies, or maintenance.

Core Certification Standards (required for DAWIA certification)	
Acquisition Training	<a href="#">ACO 101</a> Fundamentals of Systems Acquisition Management
Functional Training	<ul style="list-style-type: none"> <li>● <a href="#">PQM 101</a> Production, Quality, and Manufacturing Fundamentals</li> <li>● <a href="#">CLE 003</a> Technical Reviews</li> <li>● <a href="#">CLM 017</a> Risk Management</li> </ul>
Education	Formal education not required for certification
Experience	<ul style="list-style-type: none"> <li>● 1 year of acquisition experience in manufacturing, production, or quality assurance</li> <li>● <del>Similar experiences gained from other government or industry positions are acceptable as long as they meet the above standards.</del></li> </ul>

**Comment [KW1]:** Bullet deleted to reflect common language across career fields

Core Plus Development Guide (desired training, education, and experience)	Type of Assignment
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Training	Eng	Ind Spc	QA Spc	Bus & Ind Spc
<a href="#">BCF 106</a> Fundamentals of Cost Analysis	✓	✓	✓	✓
<a href="#">CLB 007</a> Cost Analysis	✓			✓
<a href="#">CLC 001</a> Defense Subcontract Management	✓	✓	✓	✓
<a href="#">CLC 006</a> Contract Terminations		✓	✓	✓
<a href="#">CLC 007</a> Contract Source Selection	✓	✓	✓	✓
<a href="#">CLC 011</a> Contracting for the Rest of Us	✓	✓	✓	✓
<a href="#">CLE 001</a> Value Engineering	✓	✓	✓	✓
<a href="#">CLE 004</a> Introduction to Lean Enterprise Concepts	✓	✓	✓	✓
<a href="#">CLE 011</a> Modeling and Simulation for Systems Engineering	✓		✓	✓
<a href="#">CLE 201</a> ISO 9000	✓	✓	✓	✓
<a href="#">CLM 014</a> IPT Management and Leadership	✓	✓	✓	✓
<a href="#">CLM 024</a> Contracting Overview	✓	✓	✓	✓
<a href="#">CLM 032</a> Evolutionary Acquisition	✓	✓	✓	✓
<a href="#">EVM 101</a> Fundamentals of Earned Value Management	✓	✓	✓	✓
<a href="#">LOG 101</a> Acquisition Logistics Fundamentals	✓	✓	✓	✓
<a href="#">LOG 102</a> Fundamentals of System Sustainment Management'	✓		✓	✓
<del><a href="#">SYS 101</a> Fundamentals of Systems Planning, Research, Development, and Engineering</del>				
<a href="#">ENG 102</a> Fundamentals of Systems Planning, Research Development, and Engineering	✓		✓	✓
<a href="#">TST 102</a> Fundamentals of Test and Evaluation	✓		✓	✓
<a href="#">CLL 062</a> Counterfeit Prevention Awareness	✓	✓	✓	✓
<a href="#">CLL 032</a> Preventive Counterfeit Electronic Parts from Entering DoD supply System.	✓	✓	✓	✓
<b>Education</b>				
Baccalaureate degree (desired) in engineering, chemistry, physical science, mathematics, statistics, manufacturing or production management, industrial technology or management, business, quality assurance, or a related field				
<b>Experience</b>				
At least 4 weeks of rotational assignments at a contractor and/or governmental industrial facility that includes experience in quality, manufacturing, engineering, and contracting				

**Comment [KW2]:** Check mark added to reflect updated/expanded role of a QA specialist

**Comment [KW3]:** ENG 102 is scheduled to replace SYS 101 in FY15.

**Comment [KW4]:** CLL's added to ensure Career Fields understanding of basic counterfeit issues facing DoD.

**Notes:**

**1** The Core Certification Standards section lists the training, education, and experience REQUIRED for certification at this level.

**2** "(R)" following a course title indicates the course is delivered as resident based instruction.

**3** When preparing your IDP, you and your supervisor should consider the training, education, and experience listed in this Core Plus Development Guide if not already completed.

**13** Some continuous learning (CL) modules have been created by extracting lessons in their entirety from a training course. If this is the case for the CL module(s) identified in the above core certification standards, the course from which the CL module was extracted is identified in the "Notes" section of the CL course description and the course can be

substituted to meet the certification standard.

**CERTIFICATION STANDARDS & CORE PLUS DEVELOPMENT GUIDE  
PRODUCTION, QUALITY AND MANUFACTURING LEVEL II**

Type of Assignment	Representative Activities
Engineer	<ul style="list-style-type: none"> <li>● Leads teams in establishing production planning and control processes and optimizing the overall effectiveness of the organization, methods, systems, and procedures.</li> <li>● Leads teams in building producibility into and evaluating effectiveness of designs (tooling, facilities and products).</li> <li>● Leads teams in building quality characteristics into and evaluating effectiveness of quality systems used in the designs of products and services.</li> </ul>
Industrial Specialist	<ul style="list-style-type: none"> <li>● Reviews and evaluates adequacy of plans for the expansion, conversion, integration or utilization of industrial production facilities and conducts surveys of industrial plants to determine capacity and potential for production of specific commodities.</li> <li>● Performs production surveillance/oversight of Defense contractors providing services or supplies (to include Contractor proposal reviews) based on mission and function of each agency and local organization.</li> <li>● Performs Industrial Base studies for capability and capacity.</li> <li>● Participates in Pre and Post award conferences as subject matter experts.</li> </ul>
Quality Assurance Specialist	<ul style="list-style-type: none"> <li>● Reviews and evaluates the adequacy of plans, activities and systems to ensure the proper quality characteristics have been integrated into the products and validates/verifies adherence to specified requirements through test and measurement.</li> <li>● Performs quality assurance surveillance/oversight of Defense contractors providing services or supplies (to include Contractor proposal reviews) based on mission and function of each agency and local organization.</li> <li>● Performs Industrial Base studies for quality management.</li> <li>● Participates in Pre and Post award conferences as subject matter experts.</li> </ul>
Business/Industrial Specialist	Reviews and evaluates adequacy of plans, estimates, schedules, or the use of labor, machines, and materials in manufacturing operations producing equipment, systems, facilities, supplies, or maintenance.

**Core Certification Standards** (required for DAWIA certification)

Acquisition Training	<ul style="list-style-type: none"> <li>● <a href="#">ACQ 201A</a> Intermediate Systems Acquisition, Part A</li> <li>● <a href="#">ACQ 201B</a> Intermediate Systems Acquisition, Part B <b>(R)</b></li> </ul>
Functional Training	<ul style="list-style-type: none"> <li>● <a href="#">PQM 201A</a> Intermediate Production, Quality, and Manufacturing, Part A</li> <li>● <a href="#">PQM 201B</a> Intermediate Production, Quality, and Manufacturing, Part B <b>(R)</b></li> </ul>
Education	Formal education not required for certification

Experience

- 2 years of acquisition experience in manufacturing, production, or quality assurance
- ~~Similar experiences gained from other government or industry positions are acceptable as long as they meet the above standards.~~

Comment [KW1]: Bullet deleted to reflect common language across career fields

Core Plus Development Guide (desired training, education, and experience)	Type of Assignment			
	Eng	Ind Spc	QA Spc	Bus & Ind Spc
<b>Training</b>				
<a href="#">BCF 103</a> Fundamentals of Business Financial Management	✓	✓	✓	✓
<a href="#">BCF 107</a> Applied Cost Analysis (R)	✓	✓	✓	✓
<a href="#">CLC 040</a> Predictive Analysis and Scheduling	✓	✓	✓	✓
<a href="#">CLC 041</a> Predictive Analysis and Systems Engineering	✓	✓	✓	✓
<a href="#">CLC 042</a> Predictive Analysis and Quality Assurance	✓	✓	✓	
<a href="#">CLE 007</a> Lean Six Sigma for Manufacturing	✓	✓	✓	✓
<a href="#">CLE 008</a> Six Sigma: Concepts and Processes	✓	✓	✓	✓
<a href="#">CLE 015</a> Continuous Process Improvement Familiarization	✓	✓	✓	✓
<a href="#">CLE 017</a> Technical Planning	✓		✓	✓
<a href="#">CLE 028</a> Market Research for Engineering and Technical Personnel	✓	✓	✓	✓
<a href="#">CLE 032</a> Sustainable Manufacturing for DoD – Part 1	✓	✓	✓	✓
<a href="#">CLE 301</a> Reliability and Maintainability	✓	✓	✓	✓
<a href="#">CLM 021</a> Introduction to Reducing Total Ownership Costs (R-TOC)	✓	✓	✓	✓
<a href="#">CLM 025</a> Commercial-Off-The-Shelf (COTS) Acquisition for Program Managers	✓	✓	✓	✓
<a href="#">CLV 017</a> Performance Measurement Baseline	✓	✓	✓	✓
<a href="#">HBS 434</a> Process Improvement	✓	✓	✓	✓
<a href="#">HBS 437</a> Strategic Thinking	✓	✓	✓	✓
<a href="#">LOG 103</a> Reliability, Availability, and Maintainability (RAM)	✓		✓	✓
<a href="#">LOG 200</a> Intermediate Acquisition Logistics, Part A	✓	✓	✓	✓
<a href="#">LOG 204</a> Configuration Management	✓	✓	✓	✓
<a href="#">PMT 251</a> Program Management Tools Course, Part I	✓	✓	✓	✓
<a href="#">PMT 257</a> Program Management Tools Course, Part II	✓	✓	✓	✓
<a href="#">POM 203</a> Preparation of Commercial Item Description for Engineering and Technical Personnel	✓			
<del><a href="#">SYS 202</a> Intermediate Systems Planning, Research, Development, and Engineering, Part I</del>	✓			
<a href="#">ENG 204</a> Applied Systems Engineering in Defense Acquisition.				

Comment [KW2]: Added for the QA Specialist to take when required by the Supervisory as part of their Individual Development Plan and part of their Position Based Training requirements.

Comment [KW3]: Added for the QA Specialist to take when required by the Supervisory as part of their Individual Development Plan and part of their Position Based Training requirements.

Comment [KW4]: ENG 204 is scheduled to replace SYS 202 in FY15.

<a href="#">Part I</a>				
<del>SYS 203 Intermediate Systems Planning, Research, Development, and Engineering, Part II (R)</del>				
<a href="#">ENG 205 Applied Systems Engineering in Defense Acquisition, Part II (R)</a>	✓			
<a href="#">TST 204 Intermediate Test and Evaluation (R)</a>	✓			
<b>Education</b>				
Baccalaureate degree (desired) in engineering, chemistry, physical science, mathematics, statistics, manufacturing or production management, industrial technology or management, business, quality assurance, or a related field				
<b>Experience</b>				
<ul style="list-style-type: none"> <li>● At least one 30-day rotational assignment at a contractor and/or government industrial facility that includes experience in quality, manufacturing, engineering, and contracting.</li> <li>● Two (2) years experience in manufacturing, production, or quality assurance (in addition to core certification experience)</li> </ul>				

**Comment [KW5]:** ENG 205 is scheduled to replace SYS 203 in FY15

**Notes:**

- 1** The Core Certification Standards section lists the training, education, and experience REQUIRED for certification at this level.
- 2** "(R)" following a course title indicates the course is delivered as resident based instruction.
- 5** When preparing your IDP, you and your supervisor should consider the training, education, and experience listed in the Core Plus Development Guide at this and the lower level(s) if not already completed.
- 13** Some continuous learning (CL) modules have been created by extracting lessons in their entirety from a training course. If this is the case for the CL module(s) identified in the above core certification standards, the course from which the CL module was extracted is identified in the "Notes" section of the CL course description and the course can be substituted to meet the certification standard.

**CERTIFICATION STANDARDS & CORE PLUS DEVELOPMENT GUIDE  
PRODUCTION, QUALITY AND MANUFACTURING LEVEL III**

Type of Assignment	Representative Activities
Engineer	<ul style="list-style-type: none"> <li>● Trains, organizes and provides guidance to teams in establishing production planning and control processes and optimizing the overall effectiveness of the organization, methods, systems, and procedures.</li> <li>● Trains, organizes and provides guidance to teams in building producibility into and evaluating effectiveness of designs (tooling, facilities and products).</li> <li>● Trains, organizes and provides guidance to teams in building quality characteristics into and evaluating effectiveness of quality systems used in the designs of products and services.</li> </ul>
Industrial Specialist	<ul style="list-style-type: none"> <li>● Trains, organizes and provides guidance to teams reviewing and evaluating adequacy of plans for the expansion, conversion, integration or utilization of industrial production facilities and conducting surveys of industrial plants to determine capacity and potential for production of specific commodities.</li> <li>● Trains, organizes and provides guidance to teams performing production surveillance/oversight of Defense contractors providing services or supplies (to include Contractor proposal reviews) based on mission and function of each agency and local organization.</li> <li>● Trains, organizes and provides guidance to teams performing Industrial Base studies for capability and capacity.</li> <li>● Trains, organizes and provides guidance to teams performing Pre and Post award conferences as subject matter experts.</li> </ul>
Quality Assurance Specialist	<ul style="list-style-type: none"> <li>● Trains, organizes and provides guidance to teams reviewing and evaluating the adequacy of plans, activities and systems to ensure the proper quality characteristics have been integrated into the products and validating/verify adherence to specified requirements through test and measurement.</li> <li>● Trains, organizes and provides guidance to teams performing quality surveillance/oversight of Defense contractors providing services or supplies (to include Contractor proposal reviews) based on mission and function of each agency and local organization.</li> <li>● Trains, organizes and provides guidance to teams performing Industrial Base studies for quality management.</li> <li>● Trains, organizes and provides guidance to teams performing Pre and Post award conferences as subject matter experts.</li> </ul>
Business/Industrial Specialist	<p>Trains, organizes and provides guidance to teams reviewing and evaluating adequacy of plans, estimates, schedules, or the use of labor, machines, and materials in manufacturing operations producing equipment, systems, facilities, supplies, or maintenance.</p>

Core Certification Standards (required for DAWIA certification)

Acquisition Training	None required
Functional Training	<a href="#">PQM 301</a> Advanced Production, Quality, and Manufacturing (R)
Education	Formal education not required for certification
Experience	<ul style="list-style-type: none"> <li>4 years of acquisition experience in manufacturing, production, or quality assurance</li> <li><del>Similar experiences gained from other government or industry positions are acceptable as long as they meet the above standards.</del></li> </ul>

Comment [KW1]: Bullet deleted to reflect common language across career fields

Core Plus Development Guide (desired training, education, and experience)	Type of Assignment			
	Eng	Ind Spc	QA Spc	Bus & Ind Spc
<b>Training</b>				
<a href="#">ACQ 370</a> Acquisition Law (R)	✓	✓	✓	✓
<a href="#">CLE 021</a> Technology Readiness Assessments	✓	✓		✓
<a href="#">CLL 008</a> Designing for Supportability in DoD Systems	✓	✓	✓	✓
<a href="#">CLM 055</a> Program Leadership	✓	✓	✓	✓
<a href="#">HBS 406</a> Coaching	✓	✓	✓	✓
<a href="#">HBS 409</a> Decision Making	✓	✓	✓	✓
<a href="#">HBS 424</a> Leading and Motivating	✓	✓	✓	✓
<a href="#">HBS 427</a> Meeting Management	✓	✓	✓	✓
<a href="#">HBS 441</a> Team Management	✓	✓	✓	✓
<a href="#">PMT 352A</a> Program Management Office Course, Part A	✓			
<del><a href="#">SYS 302</a> Technical Leadership in Systems Engineering (R)</del>	✓			
<a href="#">ENG 301</a> Leadership in Engineering Defense Systems (R)				
<b>Education</b>				
Master's degree (desired) in engineering, chemistry, physical science, mathematics, statistics, manufacturing or production management, industrial technology or management, business, quality assurance, or a related field				
<b>Experience</b>				
At least one 90-day rotational assignment at a contractor and/or government industrial facility that includes experience in quality, manufacturing, engineering, and contracting				

Comment [KW2]: ENG 301 is scheduled to replace SYS 302 in FY 15.

**Notes:**

- The Core Certification Standards section lists the training, education, and experience REQUIRED for certification at this level.
- "(R)" following a course title indicates the course is delivered as resident based instruction.
- When preparing your IDP, you and your supervisor should consider the training, education, and experience listed in the Core Plus Development Guide at this and the lower level(s) if not already completed.