

# Career Bands, Career Levels, Functions and Disciplines

## General Overview

This section provides job matching documentation used for this survey report.

- Career Band Summary Description for the Professional Career Band (P)  
The Global Grade(s) aligned with each level also are noted. Global Grade differentiators are shaded since North America survey participants only match to Career Levels.
- Function and Discipline Listing
- Function and Discipline Descriptions

NOTE: The job matching methodology presented here is for survey purposes only and is not a job evaluation process. Although this survey methodology is related to the Willis Towers Watson Career Map and Global Grading methodologies, it may not align directly with specific client implementation of one of these leveling methodologies. Therefore it is critical to align your internal levels to the survey levels based on a careful review of the survey definitions to ensure proper job matching.

Career Map and the Global Grading System, when formally implemented, enable the alignment of reward and talent management programs across businesses. When used as internal leveling tools, these methodologies take into account the specific organizational context of a job and the detailed set of associated accountabilities and demands. The outcomes of these processes are highly organization-specific, while survey job descriptions and levels are by their nature generic. Therefore, organizations that use Career Map or the Global Grading System as their internal leveling tool are still required to match their jobs to this survey using the job matching process outlined in this Participant Guide.

An organization's internal Global Grade or Career Level may act as a starting point, but as the Career Levels and Global Grades contained in these surveys represent a typical or generic organization, there may be differences between the internal value a specific organization places on a job and where the job should be mapped for purposes of external comparison.

## Career Bands, Career Levels, Functions and Disciplines

# Career Band Summary Descriptions

### Professional Career Band (P)

- Work is primarily achieved by an individual or through project teams, with emphasis on technical/discipline knowledge rather than managing people
- Requires the application of expertise in professional area(s) to achieve results
- Progression within the Career Band reflects increasing depth of professional knowledge, project management and ability to influence others
- Entry-level jobs within the Professional Career Band typically require a university degree or equivalent work experience that provides knowledge of and exposure to fundamental theories, principles and concepts

## Career Bands, Career Levels, Functions and Disciplines

# Career Level General Profiles

### Professional Career Band (P)

#### P6 Renowned Expert (aligns with Global Grades 16 and 17)

- Is recognized as an external thought leader within strategic function or discipline
- Has broad and comprehensive expertise in leading-edge theories, techniques and/or technologies within own function or discipline
- Proactively identifies and solves the most complex problems that impact the management and direction of the business
- Participates in the development of the product or business strategy
- Leads multidisciplinary projects or initiatives
- Progression to this level is typically restricted on the basis of individual capabilities and business requirements

#### Global Grade 17 Differentiators

- Only applies to large international or global businesses
- Contributes as top thought leader worldwide, whose achievements include major innovations that change and advance the industry and/or profession
- Leads the largest projects/initiatives that have a significant impact upon a complex, global business

#### Global Grade 16 Differentiators

- Typically found in Global Grade 18 or higher organizations
- Contributes thought leadership and innovation that influences change and advancement of the industry and/or profession
- Leads large projects/initiatives that impact the business on a domestic or international scale

#### P5 Master (aligns with Global Grade 15)

- Is recognized as an expert within the organization and has in-depth and/or breadth of expertise in own discipline and broad knowledge of other disciplines within the function
- Anticipates internal and/or external business challenges and/or regulatory issues; recommends process, product or service improvements
- Solves unique and complex problems that have a broad impact on the business
- Contributes to the development of functional strategy
- Leads project teams to achieve milestones and objectives
- Progression to this level is typically restricted on the basis of business requirements
- Typically operates with broad latitude in a complex environment

#### P4 Specialist (aligns with Global Grades 13 and 14)

- Is recognized as an expert in own area within the organization
- Has specialized depth and/or breadth of expertise in own discipline or function
- Interprets internal or external issues and recommends solutions/best practices
- Solves complex problems; takes a broad perspective to identify solutions
- May lead functional teams or projects
- Works independently, with guidance in only the most complex situations
- Progression to this level is typically restricted on the basis of business requirement

#### Global Grade 14 Differentiators

- Identifies applications of functional knowledge and existing methodologies to complex problems
- Serves as an expert within own function and discipline
- Leads functional teams or projects and serves as a best practice/quality resource

#### Global Grade 13 Differentiators

- Guides others in resolving complex issues in specialized area based on existing solutions and procedures
- Serves as an expert within own discipline
- May lead function teams or projects and serves as a best practices/quality resource
- Trains/mentors junior staff

## Career Bands, Career Levels, Functions and Disciplines

### Career Level General Profiles (continued)

#### Professional Career Band (P) (continued)

##### P3 Career (aligns with Global Grades 11 and 12)

- Has in-depth knowledge in own discipline and basic knowledge of related disciplines
- Solves complex problems; takes a new perspective on existing solutions
- Works independently; receives minimal guidance
- May lead projects or project steps within a broader project or have accountability for ongoing activities or objectives
- Acts as a resource for colleagues with less experience
- May represent the level at which career may stabilize for many years or even until retirement

##### Global Grade 12 Differentiators

- Uses best practices and knowledge of internal or external business issues to improve products/services or processes
- Typically resolves complex problems or problems where precedent may not exist
- Often leads the work of small project teams; may formally train junior staff
- Works independently

##### Global Grade 11 Differentiators

- Contributes to process improvements
- Typically resolves problems using existing solutions
- Occasionally leads the work of small project teams; provides informal guidance to junior staff
- Works with minimal guidance

##### P2 Intermediate (aligns with Global Grade 10)

- Has working knowledge and experience in own discipline
- Continues to build knowledge of the organization, processes and customers
- Performs a range of mainly straightforward assignments
- Uses prescribed guidelines or policies to analyze and resolve problems
- Receives a moderate level of guidance and direction

##### P1 Entry (aligns with Global Grades 8 and 9)

- Performs routine assignments in the entry level of the Professional Career Band
- Has conceptual knowledge of theories, practices and procedures within a discipline typically acquired through a college or university degree or the equivalent work experience
- Develops competence by performing structured work assignments
- Uses existing procedures to solve routine or standard problems
- Receives instruction, guidance and direction from more senior level roles

##### Global Grade 9 Differentiators

- Has limited discretion to vary from established procedures
- Has limited work experience involving basic concepts and procedures
- Works under general supervision

##### Global Grade 8 Differentiators

- Has no discretion to vary from established procedures
- Has no related work experience or has work experience but requires formal training in theories/concepts in own function
- Works under close supervision
- Entry-level graduate in the "probationary" period

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Listing

### **AAS Administrative Services**

AAS085 Data Control  
AAS086 Data Entry

### **AID IT Development**

AID000 IT Development Generalist/Multidiscipline  
AID010 Application Development  
AID015 Internet/Web Application Development  
AID020 Business Systems Analysis  
AID040 Systems Software Development  
AID050 Software Quality Assurance and Testing  
AID060 Database Design and Analysis  
AID090 Network Planning and Implementation  
AID100 Enterprise Resource Planning  
AID999 IT Development - No Applicable Discipline

### **AIT IT Administration**

AIT000 IT Administration Generalist/Multidiscipline  
AIT010 Computer Systems Administration  
AIT015 Website Administration  
AIT020 IT Help Desk Support  
AIT025 IT On-Site Support  
AIT030 Database Administration  
AIT040 Network Control/Administration  
AIT050 Email Administration  
AIT060 IS Disaster Recovery/Business Continuation  
AIT070 IS and Cyber Security  
AIT080 IT Training/Documentation  
AIT999 IT Administration - No Applicable Discipline

### **AMT Technical Customer Support**

AMT000 Technical Customer Support Generalist/Multidiscipline  
AMT010 Technical Customer Support - Remote/Help Desk  
AMT020 Technical Customer Support - Customer Site  
AMT999 Technical Customer Support - No Applicable Discipline

### **AOM Manufacturing/Operations**

AOM000 Manufacturing/Operations Generalist/Multidiscipline  
AOM010 Production Planning and Control  
AOM999 Manufacturing/Operations - No Applicable Discipline

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Listing (continued)

### **AQY Quality Assurance Methods**

AQY000	Quality Assurance Methods Generalist/Multidiscipline
AQY020	Business Process Improvement
AQY040	Supplier Quality Assurance
AQY050	Food Safety
AQY999	Quality Assurance Methods - No Applicable Discipline

### **ARP Product Development**

ARP000	Product Development Generalist/Multidiscipline
ARP010	Product Development - Physical Science
ARP020	Product Development - Health Science
ARP030	Product Development - Life Science
ARP035	Food Science/Technology
ARP040	Product Development - Mathematics, Statistics and Computer Science
ARP050	Product Development - Engineering
ARP080	Product Development - Creative Design/Industrial Design
ARP999	Product Development - No Applicable Discipline

### **ARR Product Development Support**

ARR000	Product Development Support Generalist/Multidiscipline
ARR010	Product Development Support - Physical Science
ARR020	Product Development Support - Health Science
ARR000	Product Development Support Generalist/Multidiscipline
ARR010	Product Development Support - Physical Science
ARR020	Product Development Support - Health Science
ARR030	Product Development Support - Life Science
ARR040	Product Development Support - Mathematics, Statistics and Computer Science
ARR060	Product Development Technical Writing
ARR070	Product Development Library/Knowledge Management
ARR999	Product Development Support - No Applicable Discipline

### **ASC Supply Chain and Logistics**

ASC000	Supply Chain and Logistics Generalist/Multidiscipline
ASC012	Supplier Development
ASC015	Materials Planning/Scheduling
ASC020	Materials Management
ASC025	Inventory Control
ASC030	Logistics
ASC035	Import/Export
ASC045	Fulfillment
ASC050	Transportation
ASC060	Purchasing Generalist/Multidiscipline
ASC070	Goods Purchasing
ASC080	Services Purchasing
ASC090	Technical Purchasing

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Listing (continued)

### ASC Supply Chain and Logistics (continued)

ASC090	Technical Purchasing
ASC095	Commodity Purchasing
ASC999	Supply Chain and Logistics - No Applicable Discipline

### AZE Engineering

AZE000	Engineering Generalist/Multidiscipline
AZE010	Chemical Engineering
AZE030	Quality Assurance Engineering
AZE040	Civil Engineering
AZE050	Electrical Equipment Engineering
AZE060	Process Engineering
AZE070	Industrial Engineering
AZE080	Manufacturing Engineering
AZE090	Tool and Design Engineering
AZE110	Mechanical Engineering
AZE120	Environmental Engineering
AZE140	Electronic Engineering
AZE150	Packaging Engineering
AZE160	Safety Engineering
AZE170	Structural/Facilities Engineering
AZE999	Engineering - No Applicable Discipline

### AZT Technical Specialty/Skilled Trade

AZT000	Technical Specialty/Skilled Trade Generalist/Multidiscipline
AZT010	Equipment Maintenance Technical Specialty
AZT015	Civil Engineering Technical Specialty
AZT020	Calibration Technical Specialty
AZT030	Product Test/Debug Technical Specialty
AZT040	Facilities Technical Specialty
AZT050	Process Technical Specialty
AZT060	Quality Control/Inspection Technical Specialty
AZT070	Test Equipment Technical Specialty
AZT080	CAD/CAE Drafting Technical Specialty
AZT085	Design and Drafting
AZT090	Production/Operations Laboratory Technical Specialty
AZT100	Biology Technical Specialty
AZT110	Chemistry Technical Specialty
AZT120	Stationary Engineering Technical Specialty
AZT130	Technical Documentation Control
AZT999	Technical Specialty/Skilled Trade - No Applicable Discipline

## Career Bands, Career Levels, Functions and Disciplines

# Functions and Disciplines Definitions

### Code

### Function

**AAS**

**Administrative Services**

Provides various office and location support activities. Identifies, enhances and follows specific processes and procedures to maximize the efficiencies of the business to which the support is being provided; ensures the correct functioning of facilities, office and/or business support services

### Applicable Career Bands

**M** (Supervisory/Management)

**P** (Professional)

**T** (Technical Support)

**U** (Business Support)

### Discipline

**AAS085**

#### **Data Control**

- Reviews source documents for data input
- Checks accuracy and relevance of input and output data by visual examination, correcting codes and batching for computer processing
- Verifies output against control totals, reviews format and accuracy of printouts, and distributes information to appropriate departments

**AAS086**

#### **Data Entry**

- Operates a data entry device to key and/or verify a variety of standard and/or complex coded or uncoded business and statistical source data into a computer



## Career Bands, Career Levels, Functions and Disciplines

### Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AID</b>	<b>IT Development</b>

Designs, develops, modifies, adapts and implements short- and long-term solutions to information technology (IT) needs through new and existing applications, systems architecture, network systems and applications infrastructure. Reviews system requirements and business processes; codes, tests, debugs and implements software solutions.

#### Applicable Career Bands

**M** (Supervisory/Management)

**P** (Professional)

**T** (Technical Support)

#### Discipline

<b>AID000</b>	<b>IT Development Generalist/Multidiscipline</b> <ul style="list-style-type: none"><li>• Designs, develops, modifies, adapts and implements short- and long-term solutions to information technology (IT) needs through new and existing applications, systems architecture, network systems and applications infrastructure</li><li>• Reviews system requirements and business processes; codes, tests, debugs and implements software solutions</li><li>• Responsibilities are within the IT Development Function as a generalist or in a combination of Disciplines</li></ul>
<b>AID010</b>	<b>Application Development</b> <ul style="list-style-type: none"><li>• Provides application software development services or technical support typically in a defined project</li><li>• Develops program logic for new applications or analyzes and modifies logic in existing applications</li><li>• Codes, tests, debugs, documents, implements and maintains software applications</li><li>• Analyzes requirements and maintains, tests and integrates application components</li><li>• Ensures that system improvements are successfully implemented</li></ul>
<b>AID015</b>	<b>Internet/Web Application Development</b> <ul style="list-style-type: none"><li>• Designs and develops primarily Internet/web pages and applications such as e-commerce and content-driven websites</li><li>• Codes, tests, debugs, documents and implements web applications using a variety of languages and platforms such as HTML, Java, PHP, JSP, Python, AJAX, JavaScript, ASP, CGI, Perl, XML</li><li>• Develops proof-of-concepts and prototypes of easy-to-navigate user interfaces (UI) that consist of web pages with graphics, icons and color schemes that are visually appealing</li><li>• Ensures that applications are compatible across multiple computing platforms and browsers</li><li>• May require familiarity with streaming media concepts and techniques, including digital video and audio compression standards such as MP3, WAV and MPEG</li><li>• May also involve responsive web design techniques</li></ul>
<b>AID020</b>	<b>Business Systems Analysis</b> <ul style="list-style-type: none"><li>• Acts as a liaison between the IT development group and business units for the development and implementation of new systems and enhancement of existing systems</li><li>• Evaluates new applications and identifies systems requirements</li><li>• Evaluates new IT developments and evolving business requirements and recommends appropriate systems alternatives and/or enhancements to current systems</li><li>• Prepares communications and makes presentations on system enhancements and/or alternatives</li></ul>

## Career Bands, Career Levels, Functions and Disciplines

### Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AID</b>	<b>IT Development (continued)</b>
<b>Discipline</b>	
<b>AID040</b>	<b>Systems Software Development</b> <ul style="list-style-type: none"><li>• Designs, develops, tests, debugs and implements operating systems components, software tools and utilities</li><li>• Determines systems software design requirements</li><li>• Ensures that system improvements are successfully implemented and monitored to increase efficiency</li><li>• Generates systems software engineering policies, standards and procedures</li></ul>
<b>AID050</b>	<b>Software Quality Assurance and Testing</b> <ul style="list-style-type: none"><li>• Conducts a wide range of quality control tests and analyses to ensure that software meets or exceeds specified standards and end user requirements</li><li>• Drafts, revises and approves test plans and scripts to ensure alignment with standards and IT strategy</li><li>• Creates test data files with valid and invalid records to thoroughly test program logic and verify system flow</li><li>• Coordinates with users to plan user acceptance testing, alpha and beta testing</li><li>• Ensures that system tests are successfully completed and documented and all problems are resolved</li></ul>
<b>AID060</b>	<b>Database Design and Analysis</b> <ul style="list-style-type: none"><li>• Analyzes, designs, creates and implements databases, including data models, logical and physical databases, data dictionaries and schemas, access methods, device allocations, validation checks, organization and security</li><li>• Develops and implements database recovery plans and procedures</li><li>• Develops and implements database analysis and development policies, standards and procedures</li><li>• Collaborates with database software vendors and external technical support on issues such as software upgrades, problems and potential solutions</li></ul>
<b>AID090</b>	<b>Network Planning and Implementation</b> <ul style="list-style-type: none"><li>• Researches networking requirements; prepares detailed architectural and installation plans</li><li>• Conducts internal studies of network performance and traffic analysis</li><li>• Researches problems, conducts cable and equipment installations, and evaluates new technologies</li></ul>
<b>AID100</b>	<b>Enterprise Resource Planning</b> <ul style="list-style-type: none"><li>• Configures, implements, maintains and upgrades enterprise resource planning (ERP) application modules (e.g., Human Resources, Finance, Supply Chain Management)</li><li>• Analyzes user requirements to determine ERP system configuration and customization</li><li>• Provides ongoing ERP system support</li><li>• May participate in defining requirements and selecting software vendors</li></ul>
<b>AID999</b>	<b>IT Development - No Applicable Discipline</b> <ul style="list-style-type: none"><li>• Responsibilities are within the IT Development Function but are not described in other Discipline summaries</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AIT</b>	<b>IT Administration</b>
<p>Manages the Information Technology (IT) infrastructure within an organization, including the physical network (e.g., LANs/WANs, servers, terminals) as well as server applications and software (e.g., PeopleSoft, Oracle). Configures, installs, maintains and upgrades server applications and hardware.</p>	

Applicable Career Bands

**M** (Supervisory/Management)                      **P** (Professional)                      **T** (Technical Support)

Discipline

- |               |   |
|---------------|---|
| <b>AIT000</b> | <p><b>IT Administration Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>Administers the IT infrastructure within an organization, including the physical network (e.g., LANs/WANs, servers, terminals) as well as server applications and software (e.g., PeopleSoft, Oracle)</li> <li>Responsibilities are within the IT Administration Function as a generalist or in a combination of Disciplines</li> </ul>   |
| <b>AIT010</b> | <p><b>Computer Systems Administration</b></p> <ul style="list-style-type: none"> <li>Configures, installs, maintains and upgrades computer systems hardware and software</li> <li>Administers and maintains security of operating systems</li> <li>Restores files or systems by designing, writing and implementing back-up procedures</li> <li>Provides operational support for the organization's information systems and peripheral equipment such as application servers, database servers, web servers, desktops, printers and storage devices</li> <li>Performs recovery procedures, scheduling and back-ups and monitors batch processes</li> </ul>  |
| <b>AIT015</b> | <p><b>Website Administration</b></p> <ul style="list-style-type: none"> <li>Plans and administers web systems hardware and operating system server software, including web server setup and implementation</li> <li>Maintains and monitors website functionality (e.g., links, calculators, news feeds) and website security</li> <li>Conducts performance monitoring, capacity planning, workload modeling and predictive analyses to identify and resolve potential issues (e.g., performance, security breaches)</li> <li>Collaborates with internal and/or external resources (i.e., content owners, editors, web developers) to maintain current information and tools on the organization's website(s)</li> <li>Troubleshoots network problems and security issues</li> </ul> |
| <b>AIT020</b> | <p><b>IT Help Desk Support</b></p> <ul style="list-style-type: none"> <li>Provides technical support to the organization's internal users of computer applications and hardware (e.g., PCs, servers, mainframes)</li> <li>Answers questions regarding system procedures, online transactions, systems status and downtime procedures and is typically located within a call center</li> <li>Collaborates with network services, software systems engineering and/or application development in order to restore service and/or identify problems</li> <li>Maintains a troubleshooting tracking log ensuring timely resolution of problems</li> </ul>  |

## Career Bands, Career Levels, Functions and Disciplines

### Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AIT</b>	<b>IT Administration (continued)</b>
<b>Discipline</b>	
<b>AIT025</b>	<b>IT On-Site Support</b> <ul style="list-style-type: none"><li>• Provides on-site technical support to the organization's internal users of computer applications and hardware (e.g., PCs, servers, mainframes)</li><li>• Collaborates with network services, software systems engineering and/or application development in order to restore service and/or identify problems</li><li>• Typically resolves issues referred by help desk support</li></ul>
<b>AIT030</b>	<b>Database Administration</b> <ul style="list-style-type: none"><li>• Administers database utilities, monitors the relationships between the database users and applications, and maintains the organization's databases across multiple platforms and computing environments</li><li>• Applies understanding of relational database concepts and query languages in order to design required summary or aggregation tables to support analyses</li><li>• Collaborates with technology/infrastructure staff to identify data relationships and functional requirements; analyzes and resolves issues related to information flow and content</li><li>• Maintains database support tools, database tables and dictionaries and recovery and back-up procedures</li><li>• Performs data modeling studies and develops detailed data models; maintains data model and entity relationship diagrams</li></ul>
<b>AIT040</b>	<b>Network Control/Administration</b> <ul style="list-style-type: none"><li>• Provides technical expertise in the management of a public and/or private network; tests and analyzes network facilities, including network control software, routers, switches, lines, modems, adapters and servers</li><li>• Installs, supports and/or maintains LANs and/or WANs; evaluates and recommends networking product and software upgrades</li><li>• Performs technical analyses of software, hardware and transmission facilities using various diagnostic tools in support of efficient network operations</li><li>• Monitors data traffic and controls network resource performance to ensure high-quality transmission</li><li>• Identifies, diagnoses and resolves technical problems related to network failure/integrity and usage of PC hardware and software</li></ul>
<b>AIT050</b>	<b>Email Administration</b> <ul style="list-style-type: none"><li>• Provides overall administration and support for email applications to ensure that the system's integrity and security are not compromised</li><li>• Embargoes incoming email on notice of virus alert, assesses the impact of the virus on email applications and works with other IT administrators to identify affected systems</li><li>• Measures and maintains email capacity and utilization and notifies users when utilization exceeds established limits</li><li>• May administer GroupWare systems</li></ul>
<b>AIT060</b>	<b>IS Disaster Recovery/Business Continuation</b> <ul style="list-style-type: none"><li>• Develops and tests plans to ensure the continuity of critical business functions and minimizes information loss in the event of a disaster (e.g., fire, flood, hurricane, earthquake)</li><li>• Sets up hot sites so that backup systems can be brought up and running quickly</li><li>• Institutes loss-reduction mechanisms to lessen exposure to disaster risks such as sprinkler systems, insurance policies and evacuation procedures</li><li>• In the event of disaster, assesses damage to computer hardware, vital records, etc., to determine what should be salvaged, restored or replaced</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AIT</b>	<b>IT Administration (continued)</b>
<b>Discipline</b>	
<b>AIT070</b>	<b>IS and Cyber Security</b> <ul style="list-style-type: none"><li>• Evaluates, tests, recommends, develops, coordinates, monitors and maintains information systems (IS) and cyber security policies, procedures and systems, including access management for hardware, firmware and software</li><li>• Ensures that IS and cyber security architecture/designs, plans, controls, processes, standards, policies and procedures are aligned with IS standards and overall IS and cyber security</li><li>• Identifies security risks and exposures, determines the causes of security violations and suggests procedures to halt future incidents and improve security</li><li>• Develops techniques and procedures for conducting IS and cyber security risk assessments and compliance audits, the evaluation and testing of hardware, firmware and software for possible impact on system security, and the investigation and resolution of security incidents</li><li>• Implements IS and cyber security policies and takes measures against intrusion, frauds, attacks or leaks</li></ul>
<b>AIT080</b>	<b>IT Training/Documentation</b> <ul style="list-style-type: none"><li>• Develops, coordinates and conducts IT training, educational and orientation programs for users</li><li>• Develops and maintains documentation of information technology systems and applications and coordinates incorporation of documentation within applications (e.g., online help)</li><li>• Develops, implements and/or approves training and documentation policies, standards and procedures</li><li>• Maintains records and prepares documentation of training programs, scheduling, employee attendance and training program effectiveness</li></ul>
<b>AIT999</b>	<b>IT Administration - No Applicable Discipline</b> <ul style="list-style-type: none"><li>• Responsibilities are within the IT Administration Function but are not described in other Discipline summaries</li></ul>

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## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AMT</b>	<b>Technical Customer Support</b>
Provides post-sale technical support services to customers, including installation, troubleshooting, problem resolution and maintenance. Responds to customer questions regarding operation and malfunctions. Advises customers on preventive maintenance and configuration adjustments to improve product performance and customer satisfaction	

Applicable Career Bands

**M** (Supervisory/Management)                      **P** (Professional)                      **T** (Technical Support)

Discipline

<b>AMT000</b>	<b>Technical Customer Support Generalist/Multidiscipline</b> <ul style="list-style-type: none"> <li>Provides post-sale technical support services to customers, including installation, troubleshooting, problem resolution and maintenance of products and services</li> <li>Responsibilities are within the Technical Customer Support Function as a generalist or in a combination of Disciplines</li> </ul>
<b>AMT010</b>	<b>Technical Customer Support - Remote/Help Desk</b> <ul style="list-style-type: none"> <li>Delivers remote (e.g., telephone, online) post-sale troubleshooting and diagnostic support services to ensure that all products and services function properly</li> <li>Resolves technical support inquiries directly or indirectly through on-site and/or remote first-level support representatives</li> </ul>
<b>AMT020</b>	<b>Technical Customer Support - Customer Site</b> <ul style="list-style-type: none"> <li>Delivers post-sale services at customer sites, including installation, maintenance and repair of organization and third-party products and services to ensure that all function properly</li> <li>Ensures customer satisfaction by advising customers on preventive maintenance and configurations that may favorably impact performance</li> </ul>
<b>AMT999</b>	<b>Technical Customer Support - No Applicable Discipline</b> <ul style="list-style-type: none"> <li>Responsibilities are within the Technical Customer Support Function but are not described in other Discipline summaries</li> </ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AOM</b>	<b>Manufacturing/Operations</b>
<p>Oversees manufacturing and/or production operations, including assembly, machinery, processing and/or packaging. Sets production schedules based on product introduction, equipment efficiency, materials supply, staffing resources and volume required to meet demand and to ensure maximum production quantity and quality</p>	
<p>Applicable Career Bands</p> <p><b>M</b> (Supervisory/Management)                      <b>P</b> (Professional)                      <b>T</b> (Technical Support)</p>	
<p>Discipline</p>	
<b>AOM000</b>	<p><b>Manufacturing/Operations Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>• Manufactures sufficient quantities of quality products at or below budgeted production costs in order to meet marketplace demand</li> <li>• Sets up equipment operation feed, speed and temperature</li> <li>• Follows established procedures for operating various conventional and/or CNC (computerized numerical control) manufacturing equipment for tasks such as cutting, punching, forming, drilling, tapping, turning, milling and stamping to fabricate, form or shape manufactured parts, tools or parts assemblies from raw materials</li> <li>• Selects and measures raw materials and parts to specifications to prepare for production processing</li> <li>• Resolves issues related to the organization's production, machinery, processing and/or packaging operations</li> <li>• Responsibilities are within Manufacturing/Operations Function as a generalist or in a combination of Disciplines</li> </ul>
<b>AOM010</b>	<p><b>Production Planning and Control</b></p> <ul style="list-style-type: none"> <li>• Plans and prepares manufacturing production schedules and departmental workflows to establish sequence and lead time of each production operation to meet shipping dates according to sales forecasts or customer orders</li> <li>• Expedites operations that delay schedules and alters schedules to meet unforeseen conditions; includes estimating</li> <li>• Analyzes plant capacity and production requisition data to determine manufacturing processes and required resources; prepares production reports</li> </ul>
<b>AOM999</b>	<p><b>Manufacturing/Operations - No Applicable Discipline</b></p> <ul style="list-style-type: none"> <li>• Responsibilities are within the Manufacturing/Operations Function but are not described in other Discipline summaries</li> </ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AQY</b>	<b>Quality Assurance Methods</b>
<p>Develops and implements programs to establish and maintain quality standards of existing products and services, as well as developing programs to focus employees on quality improvement. Develops policies, procedures and methods to check product, material, components and/or operational quality and improve same.</p>	
<p>Applicable Career Bands  <b>M</b> (Supervisory/Management) <b>P</b> (Professional)</p>	
<p>Discipline</p>	
<b>AQY000</b>	<p><b>Quality Assurance Methods Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>• Develops policies, procedures and methods to evaluate and improve the quality of products, materials, components and/or operations</li> <li>• Develops, assures and maintains the quality of products and processes, including standard procedures (e.g., ISO 9001:2000, ISO 14000 family of standards), quality audits/review, Taguchi methods, process reengineering, etc.</li> <li>• Responsibilities are within the Quality Assurance Methods Function as a generalist or in a combination of Disciplines</li> </ul>
<b>AQY020</b>	<p><b>Business Process Improvement</b></p> <ul style="list-style-type: none"> <li>• Analyzes and measures the effectiveness of existing business processes and develops sustainable, repeatable and quantifiable business process improvements</li> <li>• Researches best business practices within and outside the organization to establish benchmark data</li> <li>• Collects and analyzes process data to initiate, develop and recommend business practices and procedures that focus on enhanced safety, increased productivity and reduced cost</li> <li>• Determines how new information technologies can support reengineering business processes</li> <li>• May specialize in one or more of the following areas: benchmarking, business process analysis and reengineering, change management and measurement, and/or process-driven systems requirements</li> </ul>
<b>AQY040</b>	<p><b>Supplier Quality Assurance</b></p> <ul style="list-style-type: none"> <li>• Collaborates with suppliers to assure the quality of their products, materials, components and/or operations</li> <li>• Monitors supplier performance and supports efforts to develop and implement changes to improve the production process</li> <li>• Follows up with suppliers on quality deviations and ensures that solutions are identified and implemented</li> </ul>
<b>AQY050</b>	<p><b>Food Safety</b></p> <ul style="list-style-type: none"> <li>• Ensures food products meet standards set by organization and regulatory authorities</li> <li>• Executes and tracks regulatory compliance policies and procedures for food safety and quality, including allergens, microbiological issues, foreign materials and other food safety issues that pose a risk to human health</li> <li>• Collaborates with quality, R&amp;D, marketing, manufacturing and legal functions on food safety implications of new product formulations or ingredient changes</li> <li>• Develops and reviews food quality and safety policies, provides training and manages audits by third-party inspectors</li> </ul>
<b>AQY999</b>	<p><b>Quality Assurance Methods - No Applicable Discipline</b></p> <ul style="list-style-type: none"> <li>• Responsibilities are within the Quality Assurance Methods Function but are not described in other Discipline summaries</li> </ul>



Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>ARP</b>	<b>Product Development</b>

Discovers, develops and evaluates new product ideas, enhancements to existing products or strategic product extensions, and translates research discoveries into usable and marketable products. Leads, plans and tracks all phases of the product life cycle, from inception to introduction into the marketplace. Appraises new product ideas to determine their potential to address customer needs and to achieve goals in revenue growth and market share. Establishes product specifications and coordinates with various functions, including Engineering, Manufacturing, Marketing and Sales, to ensure successful product development and implementation.

Applicable Career Bands

**M** (Supervisory/Management)                      **P** (Professional)

Discipline

<b>ARP000</b>	<p><b>Product Development Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>• Discovers, develops and evaluates new product ideas, enhancements to existing products or strategic product extensions, and translates research discoveries into usable and marketable products</li> <li>• Leads, plans and tracks all phases of the product life cycle, from inception to introduction into the marketplace</li> <li>• Develops design briefs for new product ideas, including specifications, sketches and/or models to present a clear, focused concept for strategic consideration</li> <li>• Responsibilities are within the Product Development Function as a generalist or in a combination of Disciplines</li> </ul>
<b>ARP010</b>	<p><b>Product Development - Physical Science</b></p> <ul style="list-style-type: none"> <li>• Initiates, leads, conducts and supports product development based on chemistry, earth sciences, physics or metallurgy</li> </ul>
<b>ARP020</b>	<p><b>Product Development - Health Science</b></p> <ul style="list-style-type: none"> <li>• Initiates, leads, conducts and supports product development based on medicine, nuclear medicine, dentistry, osteopathy or veterinary medicine</li> </ul>
<b>ARP030</b>	<p><b>Product Development - Life Science</b></p> <ul style="list-style-type: none"> <li>• Initiates, leads, conducts and supports product development based on biology, bio-tech, physiology, pharmacology, neurosciences, microbiology, agriculture, food, genomics, bioinformatics, bacteriology or stem cell research</li> </ul>
<b>ARP035</b>	<p><b>Food Science/Technology</b></p> <ul style="list-style-type: none"> <li>• Develops and formulates new or improved food products or processes</li> <li>• Documents processes, formulas, ingredients and results related to production tests, samples and product evaluations</li> <li>• Conducts taste-test panel evaluation with test batches for new products or processes</li> <li>• Typically has a strong working knowledge of food science, health and nutrition, food manufacturing processes, quality assurance principles, ingredient functionality and supply, and market research practice</li> </ul>
<b>ARP040</b>	<p><b>Product Development - Mathematics, Statistics and Computer Science</b></p> <ul style="list-style-type: none"> <li>• Initiates, leads, conducts and supports product development based on mathematics, statistics or computer science</li> </ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>ARP</b>	<b>Product Development (continued)</b>
<b>Discipline</b>	
<b>ARP050</b>	<b>Product Development - Engineering</b> <ul style="list-style-type: none"> <li>• Designs, validates and brings new products to market</li> <li>• Specifies precise new product functional requirements; designs, tests and integrates components to produce final designs; and evaluates the design's overall effectiveness, cost, reliability and safety</li> <li>• Designs, develops, executes and evaluates fitness-for-use testing, product specifications and process validation plans; creates and reviews material part specifications and bills of materials</li> <li>• Collaborates with internal manufacturing partners, contract manufacturers, designers and product specialists to optimize designs for manufacturability</li> <li>• Utilizes CAD (Computer Aided Design) or CAE (Computer Aided Engineering) systems to model new designs and produce detailed engineering drawings</li> </ul>
<b>ARP080</b>	<b>Product Development - Creative Design/Industrial Design</b> <ul style="list-style-type: none"> <li>• Creates and develops the look of products (e.g., shape, color and size) with a focus on product external appearance rather than internal functionality</li> <li>• Evaluates the feasibility of design ideas based on factors such as appearance, safety, function, serviceability, budget, production costs/methods and market characteristics</li> </ul>
<b>ARP999</b>	<b>Product Development - No Applicable Discipline</b> <ul style="list-style-type: none"> <li>• Responsibilities are within the Product Development Function but are not described in other Discipline summaries</li> </ul>

<u>Code</u>	<u>Function</u>
<b>ARR</b>	<b>Product Development Support</b>
Provides technical support to discovery and development of new product ideas or strategic product extensions. Participates in analytical, experimental, investigative and other fact-finding work in support of product development scientists and engineers. Collects and classifies new product ideas. Captures specifications for product requirements and functionality.	

Applicable Career Bands  
**M** (Supervisory/Management)                      **P** (Professional)                      **T** (Technical Support)

<b>Discipline</b>	
<b>ARR000</b>	<b>Product Development Support Generalist/Multidiscipline</b> <ul style="list-style-type: none"> <li>• Provides technical support to discovery and development of new product ideas or strategic product extensions</li> <li>• Collects and classifies new product ideas or strategic product extensions to support evaluation of their potential to address customer needs and to achieve goals in revenue growth and market share</li> <li>• Captures specifications for product requirements and functionality</li> <li>• Supports the development of design briefs for new product ideas, including specifications, sketches and/or models to present a clear, focused concept for strategic consideration</li> <li>• Responsibilities are within the Product Development Support Function as a generalist or in a combination of Disciplines</li> </ul>
<b>ARR010</b>	<b>Product Development Support - Physical Science</b> <ul style="list-style-type: none"> <li>• Participates in analytical, experimental, investigative and other technical fact-finding work in support of scientists and/or engineers engaged in product development in the fields of chemistry, earth sciences, physics or metallurgy</li> </ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>ARR</b>	<b>Product Development Support (continued)</b>
<b>Discipline</b>	
<b>ARR020</b>	<b>Product Development Support - Health Science</b> <ul style="list-style-type: none"><li>• Participates in analytical, experimental, investigative and other technical fact-finding work in support of scientists, physicians and/or engineers engaged in product development in the fields of medicine, nuclear medicine, dentistry, osteopathy or veterinary medicine</li></ul>
<b>ARR030</b>	<b>Product Development Support - Life Science</b> <ul style="list-style-type: none"><li>• Participates in analytical, experimental, investigative and other technical fact-finding work in support of scientists, physicians and/or engineers engaged in product development in the fields of biology, biotechnology, physiology, pharmacology, neurosciences, microbiology, agriculture, food, genomics, bioinformatics, bacteriology or stem cell research</li></ul>
<b>ARR040</b>	<b>Product Development Support - Mathematics, Statistics and Computer Science</b> <ul style="list-style-type: none"><li>• Participates in analytical, experimental, investigative and other technical fact-finding work in support of scientists and/or engineers engaged in product development in the fields of mathematics, statistics and computer science</li></ul>
<b>ARR060</b>	<b>Product Development Technical Writing</b> <ul style="list-style-type: none"><li>• Develops clear-written materials to support product development activities such as operations, maintenance or repair manuals, tutorials, specifications and help systems</li><li>• Interviews technical staff to collect product information and specifications</li><li>• Collects and organizes technical information and product images and coordinates layout for publication</li><li>• Adheres to established terminology, style and editorial quality standards</li></ul>
<b>ARR070</b>	<b>Product Development Library/Knowledge Management</b> <ul style="list-style-type: none"><li>• Organizes and maintains the product development research library</li><li>• Catalogs documents, papers and written materials as well as electronic materials</li><li>• Implements new or improved storage and retrieval systems</li><li>• Responds to various information requests from product development staff</li></ul>
<b>ARR999</b>	<b>Product Development Support - No Applicable Discipline</b> <ul style="list-style-type: none"><li>• Responsibilities are within the Product Development Support Function but are not summarized in other Discipline summaries</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>ASC</b>	<b>Supply Chain and Logistics</b>

Performs supply chain and logistics functions, which may include, but are not limited to, material procurement, production planning, inventory control, outsourcing, vendor selection and distribution. Creates integrated processes among internal functions such as operations, purchasing and logistics, and outside suppliers. Focuses resources on continuous improvement of the movement of materials through various production processes and establishes key performance metrics and benchmarks relating to supply chain planning/forecasting to measure actual performance against goals on a regular basis. Promotes alignment by understanding and communicating customer needs and requirements throughout the organization.

Applicable Career Bands

**M** (Supervisory/Management)

**P** (Professional)

**T** (Technical Support)

**U** (Business Support)

Discipline

<b>ASC000</b>	<p><b>Supply Chain and Logistics Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>• Performs supply chain and logistics functions such as material procurement, production planning, inventory control, outsourcing, vendor selection and distribution</li> <li>• Creates integrated processes among internal functions (e.g., operations, purchasing and logistics) and outside suppliers</li> <li>• Responsibilities are within the Supply Chain and Logistics Function as a generalist or in a combination of Disciplines</li> </ul>
<b>ASC012</b>	<p><b>Supplier Development</b></p> <ul style="list-style-type: none"> <li>• Coordinates the development of new products, materials and/or services with suppliers</li> <li>• Provides specifications and collaborates with suppliers on the organization's technical, operational and quality requirements</li> <li>• Collaborates with suppliers on technical aspects of development work such as selecting materials</li> <li>• Administers a roster of approved suppliers</li> </ul>
<b>ASC015</b>	<p><b>Materials Planning/Scheduling</b></p> <ul style="list-style-type: none"> <li>• Plans, schedules and monitors inbound movement of materials from suppliers</li> <li>• Determines material requirements and coordinates the efficient movement of materials with purchasing, production and engineering</li> <li>• Develops specifications for new contract orders</li> </ul>
<b>ASC020</b>	<p><b>Materials Management</b></p> <ul style="list-style-type: none"> <li>• Coordinates incoming and outgoing movement and storage of raw materials, finished products and parts that include functions such as warehousing, shop and delivery services to ensure material availability and delivery when needed to meet production schedules</li> <li>• Compiles data on order volume, production schedules and forecasts and applies statistical methods to estimate future materials requirements</li> </ul>
<b>ASC025</b>	<p><b>Inventory Control</b></p> <ul style="list-style-type: none"> <li>• Ensures that inventories are secure, properly identified and readily accessible to authorized personnel</li> <li>• Maintains controls over various types of inventories (e.g., raw materials, subassemblies, finished goods)</li> <li>• Conducts physical inventory counts and reconciles results with inventory records</li> <li>• Ensures that quantities of incoming and outgoing shipments are correct</li> <li>• Conducts analyses of inventory levels and coordinates with production and sales requirements</li> </ul>

## Career Bands, Career Levels, Functions and Disciplines

### Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>ASC</b>	<b>Supply Chain and Logistics (continued)</b>
<b>Discipline</b>	
<b>ASC030</b>	<b>Logistics</b> <ul style="list-style-type: none"><li>• Coordinates inbound and outbound logistical operations, including inventory management, warehousing and transportation to ensure sufficient supply of goods and products</li><li>• Controls the commercial impact of the complete range of activities from receiving, locating and dispatching, sourcing, purchasing and optimizing inventory levels</li><li>• Administers an effective system that meets the organization's inventory control needs through efficient transportation of raw materials, component parts and/or finished goods</li></ul>
<b>ASC035</b>	<b>Import/Export</b> <ul style="list-style-type: none"><li>• Administers the efficient and economical movement of goods (e.g., materials, products, equipment) across international borders in accordance with organizational policies and in compliance with relevant local, country and international customs laws and processes</li><li>• Prepares, reviews, approves and maintains files for import/export documents (e.g., customs declarations, a PO (purchase order), packing list, commercial invoice, SLI (shipper's letter of instruction), SED (shipper's export declaration), BOL (bill of lading), AWB (air waybill), IC (import certificate), etc.) required for the lawful completion of import/export activities</li><li>• Ensures that commercial and sales invoices are accurate in accordance with physical shipment and customer's SLI, quantities, value of goods, country of origin and other regulatory requirements</li><li>• Serves as an import/export liaison for international customers/subsidiaries, distribution, procurement, planning, manufacturing, intercompany finance, regulatory and import/export compliance functions</li></ul>
<b>ASC045</b>	<b>Fulfillment</b> <ul style="list-style-type: none"><li>• Fulfills orders, including order entry, administration and shipping</li><li>• Processes orders and oversees related activities of third-party vendors to ensure orders flow effectively through systems and processes in accordance with the organization's customer service standards</li><li>• Develops capacity plans to support build-to-stock and/or build-to-order environments</li><li>• Ensures adequate inventory levels are maintained to maximize customer satisfaction and minimize cost</li><li>• Prepares and maintains volume and demand planning analyses and supply and production schedules based on internal and external information to establish and effectively manage an order backlog</li></ul>
<b>ASC050</b>	<b>Transportation</b> <ul style="list-style-type: none"><li>• Analyzes transportation and distribution systems and procedures to ensure the efficient and economical delivery of the organization's products</li><li>• Reviews proposals and makes recommendations for modifications in rates and transportation regulations</li><li>• Evaluates freight classifications, tariff rates and operating efficiency to ensure the proper delivery of products</li><li>• Plans and coordinates fleet operations, including acquisition, scheduling, maintenance service and repair, and disposal of trucks, and hires common carriers (third-party transportation companies) as appropriate</li></ul>
<b>ASC060</b>	<b>Purchasing Generalist/Multidiscipline</b> <ul style="list-style-type: none"><li>• Negotiates favorable terms, volume discounts and long-term contracts with suppliers and prepares and processes requisitions and purchase orders for the procurement of goods, services and supplies for customer-related business processes or for internal use as a generalist or in a combination of Purchasing Disciplines</li></ul>
<b>ASC070</b>	<b>Goods Purchasing</b> <ul style="list-style-type: none"><li>• Negotiates favorable terms, volume discounts and long-term contracts with suppliers and prepares and processes requisitions and purchase orders for the procurement of goods and supplies (e.g., paper, office supplies, coffee, tea)</li><li>• Develops and implements strategies for cost reduction, supplier consolidation, quality improvements and process efficiencies</li><li>• Reviews purchase order claims and contracts for conformance to company policy, and discusses defects and delivery problems with suppliers and negotiates refunds</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>ASC</b>	<b>Supply Chain and Logistics (continued)</b>
<b>Discipline</b>	
<b>ASC080</b>	<b>Services Purchasing</b> <ul style="list-style-type: none"><li>• Negotiates favorable terms, volume discounts and long-term contracts with suppliers and prepares and processes requisitions and purchase orders for the procurement of services (e.g., travel, cleaning, transportation, consulting services)</li><li>• Develops and implements strategies for cost reduction, supplier consolidation, service delivery improvements and process efficiencies</li><li>• Sources services for the organization and its employees (e.g., travel, cleaning, transportation, consulting services) or the negotiation of contracts with third-party suppliers (e.g., software licenses)</li><li>• Reviews purchase order claims and contracts for conformance to company policy and discusses defects and delivery problems with suppliers and negotiates refunds</li></ul>
<b>ASC090</b>	<b>Technical Purchasing</b> <ul style="list-style-type: none"><li>• Negotiates favorable terms, volume discounts and long-term contracts with suppliers and prepares and processes requisitions and purchase orders for the procurement of technical equipment, custom engineered products, systems, software or components</li><li>• Acquires and maintains understanding of technology trends, market forces, cost trends and supplier technology road maps</li><li>• Reviews purchase order claims and contracts for conformance to company policy and discusses defects and delivery problems with suppliers and negotiates refunds</li></ul>
<b>ASC095</b>	<b>Commodity Purchasing</b> <ul style="list-style-type: none"><li>• Develops and implements procurement plans and strategies to support forecasted needs for commodities (i.e., homogeneous products that are traded solely on the basis of price such as foodstuffs, metals and fuels)</li><li>• Establishes and implements strategies for negotiating commodity purchase agreements based on in-depth knowledge of foreign and domestic markets for optimum pricing and terms</li><li>• Purchases commodities in accordance with approved buying programs, using trade judgment in implementation and/or the established procurement policy</li></ul>
<b>ASC999</b>	<b>Supply Chain and Logistics - No Applicable Discipline</b> <ul style="list-style-type: none"><li>• Responsibilities are within the Supply Chain and Logistics Function but are not described in other Discipline summaries</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

Code            Function  
**AZE**            **Engineering**

Performs engineering work in operations, production, construction or maintenance environments. Designs and scales up manufacturing processes, instruments and equipment and tests manufactured products to maintain quality. Plans, designs and estimates time and cost and oversees construction and maintenance of structures, facilities, systems and components. Analyzes and develops solutions to engineering problems related to manufacturing equipment and systems or the causes of component failures. Develops and applies engineering standards and procedures and provides advice on issues within the engineering field.

Applicable Career Bands

**M** (Supervisory/Management)                      **P** (Professional)

Discipline

- |               |  |
|---------------|--|
| <b>AZE000</b> | <p><b>Engineering Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>● Performs engineering work in operations, production, construction or maintenance environments</li> <li>● Responsibilities are within the Engineering Function as a generalist or in a combination of Disciplines</li> </ul>  |
| <b>AZE010</b> | <p><b>Chemical Engineering</b></p> <ul style="list-style-type: none"> <li>● Performs engineering work related to the operation of chemical plant equipment and processes</li> <li>● Maintains and operates chemical production equipment such as condensers, absorption and evaporation towers, columns and stills</li> <li>● Coordinates maintenance and operation of chemical production equipment such as mixing, crushing, heat transfer, distillation, oxidation, hydrogenation and polymerization</li> <li>● May specialize in the processes pertaining to specific chemical products such as gasoline, synthetic rubber, plastics, detergents, cement, or paper and pulp</li> </ul>   |
| <b>AZE030</b> | <p><b>Quality Assurance Engineering</b></p> <ul style="list-style-type: none"> <li>● Develops and implements methods and procedures for process control, process improvement, testing and inspection to ensure that the products are free of flaws and function as designed</li> <li>● Designs and installs sophisticated testing equipment and performs product testing and analysis to maintain quality levels and minimize defects and failure rates</li> <li>● Analyzes reports and defective products to determine trends and recommend corrective actions</li> <li>● Collaborates with supplier representatives on quality problems, ensures that effective corrective actions are implemented and contributes to supplier quality improvement programs</li> </ul> |
| <b>AZE040</b> | <p><b>Civil Engineering</b></p> <ul style="list-style-type: none"> <li>● Plans and designs structures and facilities such as bridges, railroads, roads, airports, harbors, dams, irrigation projects, pipelines, tunnels, power plants and other projects</li> <li>● Analyzes proposed projects to ensure structural reliability, resource efficiency and cost-effectiveness</li> <li>● May construct models to identify project specifications and meet related needs</li> </ul>  |
| <b>AZE050</b> | <p><b>Electrical Equipment Engineering</b></p> <ul style="list-style-type: none"> <li>● Plans and implements the design, manufacture, installation and/or maintenance of electrical systems and apparatus, such as electric motors, machinery controls, lighting, wiring and power systems/devices, for the generation, transmission and control of electric power</li> </ul>  |
| <b>AZE060</b> | <p><b>Process Engineering</b></p> <ul style="list-style-type: none"> <li>● Develops and modifies process formulations, methods and controls to meet quality standards</li> <li>● Recommends and implements improvements, modifications or additions to document work</li> <li>● Reviews product development requirements for compatibility with processing methods to determine costs and schedules</li> <li>● Integrates equipment and material capabilities to meet process module target specifications and technology target specifications</li> </ul>   |



## Career Bands, Career Levels, Functions and Disciplines

### Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AZE</b>	<b>Engineering (continued)</b>
<b>Discipline</b>	
<b>AZE070</b>	<b>Industrial Engineering</b> <ul style="list-style-type: none"><li>• Develops, designs and plans equipment and machine layouts, workflow and safety precautions to maximize utilization of plant and manufacturing facilities</li><li>• Ensures compliance with established industry safety and design standards and guidelines</li><li>• Evaluates worker productivity and recommends improvements to increase manpower efficiency and operating performance, reduce waste and delays and promote cost control/reductions</li><li>• Develops metrics to measure plant and equipment capacity output and identifies equipment and process flow bottlenecks</li><li>• Establishes accident prevention measures and plans and schedules training programs for personnel concerning all phases of production operation</li></ul>
<b>AZE080</b>	<b>Manufacturing Engineering</b> <ul style="list-style-type: none"><li>• Plans, designs and constructs manufacturing facilities and related structures</li><li>• Determines facility specifications, including analysis and evaluation of location, material resources and structural design</li><li>• Resolves technical problems and recommends production improvements</li></ul>
<b>AZE090</b>	<b>Tool and Design Engineering</b> <ul style="list-style-type: none"><li>• Develops and designs a variety of tools, machinery and equipment, such as shaping and cutting tools, dies, gauges and fixtures, for manufacturing and experimental purposes</li><li>• Consults with plant and manufacturing personnel to determine tool specifications and requirements</li><li>• Evaluates tools and machinery to improve quality and performance</li></ul>
<b>AZE110</b>	<b>Mechanical Engineering</b> <ul style="list-style-type: none"><li>• Directs and coordinates fabrication, installation, operation, application, maintenance and repair of mechanical or electromechanical machines, equipment, tools, engines and systems</li><li>• Ensures that quality levels and industry standards are maintained or improved in the manufacturing process</li><li>• Oversees installation, operation, maintenance and repair of equipment such as centralized heat, gas, water and steam systems</li><li>• Evaluates mechanical products to determine their cost effectiveness and efficiency</li><li>• May evaluate field installations and recommend design modifications to eliminate malfunctions</li></ul>
<b>AZE120</b>	<b>Environmental Engineering</b> <ul style="list-style-type: none"><li>• Analyzes environmental conditions and recommends changes to prevent or eliminate dangerous substances and materials</li><li>• Ensures compliance with regulatory agency policies, including government legislation pertaining to the preservation of the environment</li><li>• Develops, designs and may operate gauging equipment to determine the amounts of toxic pollutants present in air, land and water to ensure compliance with regulatory agency policies</li></ul>
<b>AZE140</b>	<b>Electronic Engineering</b> <ul style="list-style-type: none"><li>• Designs, fabricates, tests, implements and modifies electronic components, products and systems in a production setting</li><li>• Establishes test procedures and systems for inspection of incoming electronics components</li><li>• Develops, tests and implements engineering change orders (ECOs) for design revisions</li><li>• Analyzes and evaluates new or improved electronic components</li></ul>



Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AZE</b>	<b>Engineering (continued)</b>
<b>Discipline</b>	
<b>AZE150</b>	<b>Packaging Engineering</b> <ul style="list-style-type: none"><li>• Develops and designs packaging equipment and materials for safe, convenient and attractive transport of goods under a variety of conditions</li><li>• Analyzes engineering drawings and specifications to determine the required type of packaging materials and to maximize convenience, utility and function based on the product's physical characteristics, safety and special-handling requirements</li><li>• Evaluates packaging and transporting methods and procedures to ensure compliance with safety and quality standards</li><li>• Evaluates and recommends efficient packing procedures, innovations in packaging materials, and utilization of sealing and fastening devices</li></ul>
<b>AZE160</b>	<b>Safety Engineering</b> <ul style="list-style-type: none"><li>• Identifies, analyzes and controls occupational hazards and promotes worksite or product safety by applying knowledge of industrial processes, mechanics, psychology, physiology, and industrial health and safety laws</li><li>• Advises on structural safety requirements based on failure mode analysis of such factors as fatigue, stability, stress, concentration and creep</li><li>• Designs protective equipment or safety devices for machines and redesigns machines and plant equipment to eliminate occupational hazards</li><li>• Develops standards which set tolerances, stress ratios, strength of materials and other related engineering requirements</li><li>• Reviews proposed occupational safety policies, guidelines and standards to determine their consistency with accepted engineering principles and practices; recommends technical changes as needed</li></ul>
<b>AZE170</b>	<b>Structural/Facilities Engineering</b> <ul style="list-style-type: none"><li>• Develops and implements capital improvement projects, such as construction, remodeling, renovation, and maintenance of buildings and facilities, including preliminary concept development, detailed engineering design and bidding</li><li>• Conducts preliminary surveys and prepares schematics and work drawings for the construction and maintenance of new or remodeled structures and facilities</li><li>• Examines and approves engineering and architectural drawings and design computations for buildings and facilities to ensure compliance with sound engineering practices and codes; incorporates functional requirements into facility requirements</li><li>• Estimates cost of projects; writes contracts and specifications for labor, materials and equipment for construction projects; secures bids from contractors</li><li>• Conducts periodic inspections of work in progress and advises construction supervisors and contractors on plans and specifications</li><li>• Inspects existing facilities and prepares reports on the condition, deficiencies observed, designs necessary for repairs and estimated cost of repairs</li></ul>
<b>AZE999</b>	<b>Engineering - No Applicable Discipline</b> <ul style="list-style-type: none"><li>• Responsibilities are within the Engineering Function but are not described in other Discipline summaries</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AZT</b>	<b>Technical Specialty/Skilled Trade</b>

Provides technical support to engineers and scientists in areas such as production, operations, maintenance, safety, testing, process improvement or product development. Uses schematics, diagrams, written and verbal descriptions or defined plans to perform testing and troubleshooting on electronic or mechanical components, equipment or systems. Gathers, maintains, formats, compiles and manipulates technical data using established formulae and procedures and performs detailed mathematical calculations.

Applicable Career Bands

**M** (Supervisory/Management)

**P** (Professional)

**T** (Technical Support)

Discipline

<b>AZT000</b>	<p><b>Technical Specialty/Skilled Trade Generalist/Multidiscipline</b></p> <ul style="list-style-type: none"> <li>• Provides technical support to engineers and scientists on a variety of technical tasks</li> <li>• Develops and recommends procedures and methods and prepares technical reports and documentation</li> <li>• Performs technical evaluations of events to determine root cause; recommends corrective action</li> <li>• Responsibilities are within the Technical Specialty/Skilled Trade Function as a generalist or in a combination of Disciplines</li> </ul>
<b>AZT010</b>	<p><b>Equipment Maintenance Technical Specialty</b></p> <ul style="list-style-type: none"> <li>• Performs preventive maintenance and repairs on equipment and systems (e.g., mechanical, electrical)</li> <li>• Evaluates and recommends equipment improvements to improve availability, capability and yield</li> <li>• Performs equipment failure analyses (including preventive and unscheduled maintenance)</li> <li>• Troubleshoots and diagnoses equipment problems</li> <li>• Prepares technical reports to document equipment modifications and equipment maintenance procedures</li> </ul>
<b>AZT015</b>	<p><b>Civil Engineering Technical Specialty</b></p> <ul style="list-style-type: none"> <li>• Supports engineers in the planning, design, and supervision of the construction of structures and facilities such as bridges, railroads, roads, airports, harbors, dams, irrigation projects, pipelines and tunnels</li> <li>• Monitors and inspects completed and in-progress construction work and may performs tests to ensure quality standards are met</li> <li>• Compiles and analyzes traffic patterns, hydrological and meteorological information and other engineering data</li> <li>• Prepares detailed site layouts and specifications</li> <li>• Reviews and analyzes design drawings for feasibility, performance, safety and durability</li> </ul>
<b>AZT020</b>	<p><b>Calibration Technical Specialty</b></p> <ul style="list-style-type: none"> <li>• Performs precise calibrations and preventive and corrective maintenance on measuring and test equipment, instruments, tools, gauges and fixtures</li> <li>• Sets up test equipment and conducts tests on performance and reliability of mechanical, structural or electromechanical equipment</li> <li>• Develops calibration operating procedures and documentation for all instruments</li> <li>• Selects and procures instrument spare parts to minimize machine downtime</li> <li>• Coordinates calibration with outside contractors for equipment that cannot be maintained internally</li> </ul>
<b>AZT030</b>	<p><b>Product Test/Debug Technical Specialty</b></p> <ul style="list-style-type: none"> <li>• Debugs and troubleshoots failed electronic components, assemblies and systems using test equipment and schematics</li> <li>• Monitors component failures and initiates supplier notification if defect rates exceed acceptable levels</li> <li>• Identifies and resolves issues that adversely affect test yields</li> <li>• Collaborates with engineering and manufacturing teams to establish production test plans and processes</li> <li>• Compiles and maintains test-related documentation, including test plans, procedures, results and reports</li> </ul>

## Career Bands, Career Levels, Functions and Disciplines

### Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AZT</b>	<b>Technical Specialty/Skilled Trade (continued)</b>
<b>Discipline</b>	
<b>AZT040</b>	<b>Facilities Technical Specialty</b> <ul style="list-style-type: none"><li>• Operates, monitors and maintains utilities, including HVAC (heating, ventilation and air conditioning) setup, maintenance and balancing, WFI (water for injection), purified water and process equipment</li><li>• Maintains, troubleshoots and repairs facilities mechanical components and electrical equipment and systems in accordance with SOPs (standard operating procedures), internal requirements, manufacturer's specifications and safety policies</li><li>• Develops, maintains and secures a spare parts inventory of basic maintenance hand and power tools</li><li>• Recommends purchase of maintenance tools, equipment and supplies as required to streamline processes and increase efficiency</li><li>• Assists engineers in developing methods and procedures to control or improve facilities processes</li></ul>
<b>AZT050</b>	<b>Process Technical Specialty</b> <ul style="list-style-type: none"><li>• Provides technical support to engineers to achieve improvements in cycle-time, yield, unit cost, quality, safety and compliance of production and operations processes</li><li>• Monitors instruments and equipment and collects operating data, including calibration, inspection, testing and repair activities, to assist in making on-line adjustments to instruments, equipment or products</li><li>• Analyzes and resolves malfunctions and deviations of instruments and control systems to identify and resolve problems</li><li>• Conducts analyses and prepares reports using metrics from salvage tracking, trending, reporting and root-cause analyses</li><li>• Maintains process designs to optimize process and facility use while conforming to standard operating procedures (SOPs) and Good Manufacturing Practices (GMPs)</li></ul>
<b>AZT060</b>	<b>Quality Control/Inspection Technical Specialty</b> <ul style="list-style-type: none"><li>• Provides technical support to the quality and quality engineering (QE) functions</li><li>• Conducts nondestructive examination (NDE) and quality control (QC) inspections on products, materials, components, parts, etc., at various stages of the production process to ensure compliance with established quality and reliability standards</li><li>• Captures and analyzes statistical data from processes to either confirm compliance with established standards or identify deviations from standards</li><li>• Recommends new or enhanced methods, procedures and standards</li></ul>
<b>AZT070</b>	<b>Test Equipment Technical Specialty</b> <ul style="list-style-type: none"><li>• Plans, lays out, assembles, modifies, validates and maintains test equipment and related structural assemblies by reading and interpreting blueprints, engineering drawings and sketches</li><li>• Assists engineers in operating test equipment to obtain performance data on parts and assemblies under varying operating conditions</li><li>• Collects, compiles and summarizes test data and reviews results with Engineering to resolve problems such as product or equipment issues, malfunctions and incomplete test data</li><li>• Diagnoses test equipment malfunctions and services and repairs equipment as required</li></ul>
<b>AZT080</b>	<b>CAD/CAE Drafting Technical Specialty</b> <ul style="list-style-type: none"><li>• Prepares and maintains detailed design drawings, schematics or specifications typically using computer-aided design software</li><li>• Works closely with design originators (e.g., engineers, designers) to resolve design details or discrepancies or to prepare drawings of unusual, complex or original designs which require a high degree of precision using computer-aided drafting (CAD) or computer-aided engineering (CAE) equipment</li><li>• Creates, modifies and controls detailed two- and three-dimensional parts and assembly drawings from engineers' and technicians' sketches, plans and written and verbal instructions</li><li>• Develops and maintains drafting standards and procedures</li><li>• Evaluates and recommends purchase of CAD/CAE-related computer hardware and software</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

<u>Code</u>	<u>Function</u>
<b>AZT</b>	<b>Technical Specialty/Skilled Trade (continued)</b>
<b>Discipline</b>	
<b>AZT085</b>	<b>Design and Drafting</b> <ul style="list-style-type: none"><li>• Prepares drawings for civil engineering projects such as bridges, highways, waterfront facilities, sanitary and drainage systems, traffic systems, tunnels, mass transit systems, airports, commercial and industrial buildings, dams and reservoirs</li><li>• Prepares drawings or schematics of electronic power distribution systems involving electronic circuitry</li><li>• Prepares drawings for HVAC (heating, ventilating and air conditioning) systems, piping systems, refrigeration systems and equipment machinery, engines and mechanical apparatus</li><li>• Prepares drawings for vehicle (e.g., automobiles, planes, motorcycles) design and production</li><li>• Prepares maps, cross-sections, logs, graphs and charts used in resource exploration operations</li></ul>
<b>AZT090</b>	<b>Production/Operations Laboratory Technical Specialty</b> <ul style="list-style-type: none"><li>• Assists engineers and scientists with a variety of laboratory tasks</li><li>• Performs chemical and/or physical analyses or scientific tests using both routine and special techniques in compliance with all safety and infection control standards</li><li>• Collects, analyzes and processes laboratory samples</li><li>• Records results of tests, organizes data, performs basic computations, and prepares reports and analyses using standard procedures and guidelines</li><li>• Installs, operates, maintains and repairs laboratory test equipment, apparatus, systems and supplies</li></ul>
<b>AZT100</b>	<b>Biology Technical Specialty</b> <ul style="list-style-type: none"><li>• Assists biologists with a variety of laboratory tasks in studying living organisms and infectious agents related to product development or quality control of production processes or products</li><li>• Analyzes organic substances such as blood, food and drugs</li></ul>
<b>AZT110</b>	<b>Chemistry Technical Specialty</b> <ul style="list-style-type: none"><li>• Assists chemists and chemical engineers conducting chemical and physical laboratory tests using instrumental techniques in making qualitative and quantitative analyses of solids, liquids and gaseous materials related to product development or quality control of production processes or products</li><li>• Performs quantitative and qualitative analyses in organic, inorganic, physical, analytical chemistry, photochemistry or electrochemistry to determine the chemical and physical properties of materials, liquids and gases</li></ul>
<b>AZT120</b>	<b>Stationary Engineering Technical Specialty</b> <ul style="list-style-type: none"><li>• Operates, monitors, adjusts, maintains and repairs stationary engines and mechanical equipment and systems used in production and operations under the overall guidance of stationary engineers</li><li>• Ensures that equipment such as generators, motors, turbines, boilers and complex fire safety systems in buildings and plants operate safely, economically and within established limits by monitoring meters, gauges and computerized controls either on-site or from a central location</li><li>• Performs repairs ranging from a complete overhaul to replacing defective valves, gaskets or bearings</li><li>• Records relevant events and facts concerning the operation and maintenance of equipment</li><li>• Conducts routine maintenance to maintain or improve operating efficiency such as lubricating moving parts, replacing filters, removing soot and corrosion from boilers, and adding chemicals to boiler water to prevent corrosion and harmful deposits</li></ul>

Career Bands, Career Levels, Functions and Disciplines

## Functions and Disciplines Definitions (continued)

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<u>Code</u>	<u>Function</u>
<b>AZT</b>	<b>Technical Specialty/Skilled Trade (continued)</b>
<b>Discipline</b>	
<b>AZT130</b>	<b>Technical Documentation Control</b> <ul style="list-style-type: none"><li>• Compiles and maintains technical documentation such as blueprints, drawings, change orders and specifications</li><li>• Examines documents to verify completeness and accuracy of data and resolves discrepancies with document originators</li><li>• Maintains computerized document control records management system and/or hardcopy documents to ensure compliance with all applicable and required standards, including GMP (good manufacturing practice) and QSR (quality system regulation) requirements</li><li>• Develops and maintains procedures and standards for maintaining documents and change control of documents, including document development, approval, production, distribution and amendment</li><li>• Plans and directs document and content management life cycles and may work with either structured or unstructured metadata</li></ul>
<b>AZT999</b>	<b>Technical Specialty/Skilled Trade - No Applicable Discipline</b> <ul style="list-style-type: none"><li>• Responsibilities are within the Technical Specialty/Skilled Trade Function but are not described in other Discipline summaries</li></ul>