



Schedule
Contract GS-02F-0027U



Advanced Technologies and
Laboratories International, Inc.

General Services Administration Federal Supply Service Authorized Federal Supply Service Schedule Price List

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!™ is:
<http://www.GSAAdvantage.gov>

Training Aides and Devices; Instructor-Led Training; Course Development; Test Administration

FSC Group 69
Class 6930

Special Item No. 27-400 – Instructor-Led Training\
Special Item No. 27-500 – Course Development Test Administration

Contract no.: GS-02F-0027U

For more information on ordering from Federal Supply Schedules, click on the FSS Schedules button at <http://www.fss.gsa.gov>

Contract Period: December 5, 2007 – December 4, 2012

Price List Effective: December 5, 2007

Advanced Technologies and Laboratories International, Inc. (ATL)
20010 Century Boulevard, Suite 500
Germantown, MD 20874
1.800.416.4285
www.atlintl.com

Schedule 69 Training Aids & Devices Instructor-Led Training; Course Development; Test Administration



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CONTRACTOR INFORMATION

Contractor

Advanced Technologies and Laboratories
 International, Inc. (ATL)
 20010 Century Boulevard, Suite 500
 Germantown, Maryland 20874
 Phone: 301.353.9464
 Fax: 301.972.6904
 ahwang@atlintl.com
 Corporate web page: www.atlintl.com

Information for Ordering Activities

Contract Number: GS-02F-0027U
 Contract Period: 12/05/07 – 12/04/12

Business Size

- Women-Owned Business
- Other than Small

Customer Information

- 1a Awarded Special Item Numbers
 Special Item Number
 27-400 – Instructor-Led Training
 27-500 – Course Development; Test Administration
- 1b Lowest Price Model: 27-400 OSH-9 Confined Space Entry \$1750.00
- 1c. If the Contractor is proposing hourly rates, a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided. If hourly rates are not applicable, indicate “Not applicable” for this item: See pricing below.
- 2 Maximum Order: The maximum order provided in the contract clause 52.216-19, Order Limitations (Oct 1995) is \$1,000,000.00. Orders in excess of this amount may be accepted by ATL.
- 3 Minimum Order: The minimum order provided in the contract clause 52.216-19, Order Limitations (Oct 1995) is \$250.00.
- 4 Geographic Coverage (delivery area): Per contract clause I-FSS-103, Scope of Contract – Worldwide (Jul 2002) ATL will provide domestic and overseas delivery.

- 5 Point(s) of Production (city, county and State or foreign country): Same as company address
- 6 Discounts from List Price or Statement of net price: Prices Shown Herein are Net (discount deducted)
- 7 Quantity Discounts: It is ATL's practice to review each task order for factors that may allow us to propose discounted labor rates.
- 8 Prompt Payment Terms: Net 30 days
- 9a Government purchase cards will be accepted at or below the micro-purchase threshold
- 9b Government purchase cards are also accepted above the micro-purchase threshold
- 10 No foreign items are anticipated. If any foreign items are provided they will be determined by the Delivery/Task Order
- 10a Specific delivery time will be provided on each individual order. Normal delivery time will be 30 days.
- 10b Expedited Delivery: Determined by the Delivery/Task Order
- 10c Overnight and 2-day delivery: Determined by the Delivery/Task Order
- 10d Urgent Requirement: The contract includes the clause I-FSS-140-B, Urgent Requirements (Jan 1994). Agencies can contact the ATL representative, Anne Welfare at (301) 515-6760 to affect a faster delivery.
- 11 F.O.B. Point(s): As specified by contract clause 52.247-34, FOB Destination (Nov 1991) deliveries will be made to the point of delivery as specified in each order.
12. Ordering Address(es):
Anne Welfare
Advanced Technologies and Laboratories International, Inc. (ATL)
20010 Century Boulevard, Suite 500, Germantown, MD 20874
- 13 Ordering procedures:
For supplies and services, the ordering procedures, information on Blanket Purchase Agreement (BPAs), and a sample BPA can be found at the GSA/FSS Schedule homepage (www.fsa.gsa.gov/schedules).
- 14 Payment address(es):
Advanced Technologies and Laboratories International, Inc. (ATL)
20010 Century Boulevard, Suite 500, Germantown, MD 20874
ABA Number: 052000113
Account Number: 42534932
Tax ID Number: 51-0323647
- 15 Warranty Provision: As provided by contract clause 552.246-73, Warranty – Multiple Award Schedule (Mar 2000), Contractor's standard commercial warranty applies.
- 16 Export Packing Charges: Not Applicable
- 17 Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level): Standard Master Card terms apply
- 18 Terms and conditions of rental, maintenance, and repair: Not Applicable
- 19 Terms and conditions of installation: Not Applicable
20. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices: Not Applicable

- 20a The terms and conditions of this contract apply to all orders.
- 21 List of service and distribution points: Not Applicable
- 22 List of participating dealers: Not Applicable
- 23 Preventive maintenance: Not Applicable
- 24a Special attributes such as environmental attributes (e.g., recycled content, energy efficiency, and/or reduced pollutants): Not Applicable
- 24b Section 508 compliance: Not Applicable
- 25 Data Universal Number System (DUNS) number: 827013467
- 26 ATL is registered in the Central Contractor Registration (CCR) database.

ABOUT ATL

Advanced Technologies and Laboratories International, Inc.(ATL) is a woman-owned consulting firm specializing in occupational and environmental safety and health and training. Since beginning its current operations in 1995, ATL has earned a reputation for excellence, service, and value that has enabled it to grow rapidly. Today, ATL has over 100 employees. The company is based in Germantown, Maryland, with an additional office in Richland, Washington.

ATL's training experience dates to 1998, when ATL began developing and presenting training courses for the Department of Energy's National Nuclear Security Institute (NNSI). In 1999, ATL began developing training courses for the Occupational Safety and Health Administration. Since that time, ATL's business in providing instructor led training and developing courses and testing has grown substantially—both in volume and in the diversity of our clients and of the training projects that we undertake.

Major Government Clients

ATL has established a strong track record with Federal government clients in a variety of departments and agencies. Among our largest clients are:

- Centers for Disease Control and Prevention
- National Institute of Occupational Safety and Health
- Department of Housing and Urban Development
- Federal Emergency Management Agency
- National Institutes of Health
- National Nuclear Security Administration, NNSA-HQ
- Occupational Safety and Health Administration
- U.S. Air Force, Scott Air Force Base
- U.S. Army, Industrial Operations Command
- U.S. Census Bureau
- U.S. Department of Energy
- U.S. Department of Health and Human Services
- U.S. Department of Homeland Security
- U.S. Department of Transportation
- U.S. Environmental Protection Agency
- U.S. Marshall Services

Supplemental Information

The following information on ATL is provided to assist ordering offices in completing standard forms:

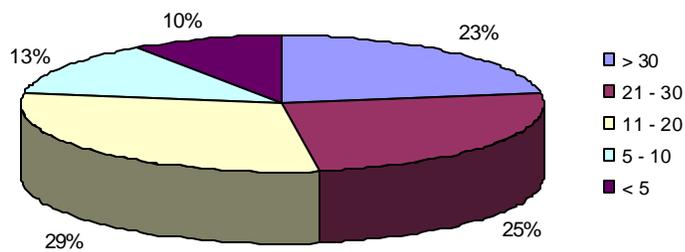
- Contractor Establishment Code (DUNS): 82-701-3467
- Contractor Taxpayer Identification Number (TIN): 51-032-3647

Professional Staff

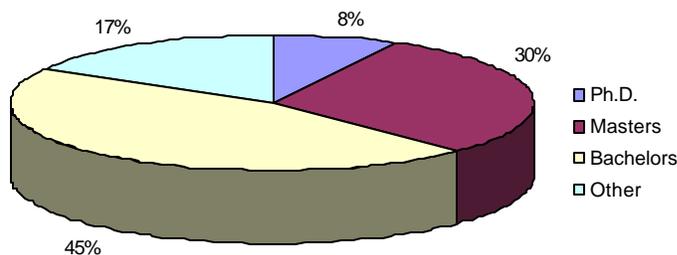
ATL employs seasoned, accomplished professional staff, with rich and diverse background in both government and the private sector. Through a truly interdisciplinary approach, ATL is able to quickly and efficiently assemble integrated teams with the experience and skill sets to address customer needs in consulting, facilitation, survey, training, and support products.

ATL's staff has the extensive experience and background to effectively support your management and technical needs.

Years of Experience in the Field



Education



ATL'S INSTRUCTOR LED TRAINING SERVICES AND PRODUCTS

Under Contract GS-02F-0027U, ATL is ready to provide a full range of products and service to support Federal government customers in the implementation of management, organizational, and business improvement efforts in their organizations. Our services are categorized according to the following Special Item Numbers:

- 27-400 – Instructor-Led Training
- 27-500 – Course Development; Test Administration

27-400 – Instructor-Led Training

ATL instructors teach training courses that are delivered as traditional classroom training, as well as those delivered by interactive television (ITV) and video teleconferencing (VTC). ATL also offers “blended learning” courses, in which parts of the course are instructor-led traditional classroom training and parts are Web-based learning.

27-500 – Course Development; Test Administration

ATL develops a wide variety of instructor-led and web-based courses and lessons for a very diverse group of clients both in private industry and in government. ATL is responsible for the curriculum and employing subject matter experts. ATL also performs all of the instructional design, graphics, and programming (for web-based) for these courses.

ATL has developed several new test instruments to measure how well training is being absorbed by trainees. These include knowledge tests and hands-on skills assessments. ATL works with the client's training staff to develop customized templates to facilitate grading, and with the client's information technology staff on the storage of test results in databases to facilitate analysis.

27-400 PRICE LIST

SIN 27-400 - INSTRUCTOR LED TRAINING & WEB BASED TRAINING					
SIN	Item No.	Item Description	Duration	Price	* Additional Individual Price
Occupational Safety and Health					
27-400	OSH-1	Job Hazard Analysis	2-days	\$ 6,500.00	\$ 800.00
27-400	OSH-2	Industrial Hygiene	3-days	\$ 9,000.00	\$ 1,050.00
27-400	OSH-3	Toxicology	2-days	\$ 6,500.00	\$ 800.00
27-400	OSH-4	OSHA Standards and Compliance	2-days	\$ 6,500.00	\$ 800.00
27-400	OSH-5	Hazardous Waste Management	1-day	\$ 3,500.00	\$ 450.00
27-400	OSH-6	MSDS and Chemical Hazard Communication	1/2 day	\$ 1,750.00	\$ 225.00
27-400	OSH-7	Respirators and Personal Protective Equipment	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-8	Emergency Planning & Community Right to Know Act (EPCRA)	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-9	Confined Space Entry	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-10	Ladder Safety	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-11	Electrical Safety	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-12	Cold and Heat Stress Management	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-13	Fall Protections	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-14	Lockout/Tagout	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-15	Hearing Conservation	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-16	Machine Safety	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-17	Welding, Cutting and Brazing	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-18	Air Monitoring Protection	1/2-day	\$ 1,750.00	\$ 225.00
27-400	OSH-19	Laboratory Safety	1-day	\$ 3,500.00	\$ 450.00
Radiological Protection and Radiation Safety					
27-400	RPRS-1	Radiological Worker Training	5-days	\$ 12,500.00	\$ 1,500.00
27-400	RPRS-2	Shipping Radioactive Materials with Radiation Fundamentals	1-day	\$ 3,500.00	\$ 450.00
27-400	RPRS-3	Characterization, Decontamination, and Decommissioning	5-days	\$ 12,500.00	\$ 1,500.00
27-400	RPRS-4	Radioactive Waste Management and Disposal	3-days	\$ 9,000.00	\$ 1,050.00
27-400	RPRS-5	Basic Radiation Safety	1-day	\$ 3,500.00	\$ 450.00
27-400	RPRS-6	Radiation Safety Refresher Training	2-days	\$ 6,500.00	\$ 800.00
27-400	RPRS-7	Radioactive Material Package Receipt and Inspection	1-day	\$ 3,500.00	\$ 450.00
Emergency Responders					
27-400	ER-1	National Incident Management (NIM) System Overview	3-day	\$ 9,000.00	\$ 1,050.00
27-400	ER-2	Emergency Operations for Senior Federal Official	3-day	\$ 9,000.00	\$ 1,050.00
27-400	ER-3	Emergency Classification Decision-Making	2-day	\$ 6,500.00	\$ 800.00
27-400	ER-4	Emergency Management Hazards Assessment	3-day	\$ 9,000.00	\$ 1,050.00

NOTE:

Minimum and Maximum Number of Students: 5 - 10 students per training

*GSA Individual Price - is offered for the client that has more than the maximum number of student required per training.

COURSE DESCRIPTIONS

SIN 27-400 OCCUPATIONAL SAFETY AND HEALTH TRAINING

OSH – 1 Job Hazard Analysis

The prevention of workplace injuries and illnesses are everyone's responsibility. You can prevent workplace injuries and illnesses by using safe and efficient work methods. However, to maintain a safe and healthful workplace, you must have the knowledge necessary to identify, understand, and evaluate hazards. This Job Hazard Analysis course will provide you with information on common hazards and tools that you can use to perform hazard identification and evaluation on a day-to-day basis. During this course, you should focus on the common sense aspects of performing hazard identification.

You can create a safe and healthful workplace by recognizing and evaluating hazards, and then responding by eliminating or controlling the hazard. This is an ongoing process that should be integrated into your day-to-day work.

At the end of the training course, you should be able to:

- Describe the importance of the hazard identification and evaluation process
- Recognize hazards that you may encounter in the workplace
- Evaluate workplace hazard- potential
- Describe the job hazard analysis (JHA) process
- Determine the actions needed to mitigate hazards.

OSH – 2 Industrial Hygiene

The Introduction to Industrial Hygiene course provides an introduction to the diverse field of occupational health.

This course covers the following:

- Industrial Hygiene
- Environmental Factors or Stresses
- Routes of Entry
- Types of Air Contaminants
- Threshold Limit Values
- Federal Occupation Safety and Health Standards
- Recognition of Health Hazards

At the end of the training course, you should be able to:

- Identify types of contaminants
- Identify and define the factors or stresses influencing workers
- Identify and define the routes of entry into the body
- Know the precise definitions of terms commonly used in industrial hygiene.

OSH – 3 Toxicology

This training course presents general concepts and principles of toxicology. The principles of toxicology are used to ensure safe exposure levels. Toxicology, for the purpose of this course, is the study of the effects of chemicals on living organisms. It is a broad science because of the variety of potential effects and the diversity of chemicals. Toxicity is an inherent characteristic of all chemicals and a certain dose of any substance may cause illness, injury, or death.

At the end of the training course, you should be able to:

- Define basic toxicology fundamentals
- Understand how you may be exposed to hazardous chemicals and substances
- Recognize the effect various chemicals may have on your body
- Explain current occupational exposure guidelines.

OSH – 4 OSHA Standards and Compliance

This course will provide the information you need in order to apply the OSHA standards to hazards in your workplace. OSHA Administers the Federal safety and health laws that require employers to provide a safe and healthy workplace for their employees. OSHA regulations can seem difficult to read and understand, but this course will help you overcome those fears.

This course describes the OSHA Act and Occupational Safety and Health Administration (OSHA) standards. The better these are understood, the better they can be applied to protect and improve the quality of life for all employees in the workplace.

This course includes the following:

- OSH Act Coverage
- OSHA Standards
- Horizontal and Vertical Standards
- Code of Federal Regulations
- Paragraph Numbering System
- Color Coding.
- Recordkeeping and Reporting
- Workplace Inspections
- Citations and Penalties
- Appeals Process
- OSHA Approved State Programs
- Employer Responsibilities and Rights
- Employee Responsibilities and Rights

At the end of the training course, you should be able to:

- Understand who is covered by the OSH Act
- Understand the general process of standard development

- Know recordkeeping and employee information requirements
- Understand how OSHA inspections are conducted and citations and penalties are issued
- Understand employer and employee rights and responsibilities.
- Understand the general process of OSHA standards
- Understand the format to which OSHA standards are written
- Understand a simplified color-coding system to make using OSHA standards easier.

OSH – 5 Hazardous Waste Management

Wastes must be properly managed. Waste can be classified as non-hazardous solid, hazardous chemical, infectious, radioactive, special, or polychlorinated biphenyls (PCB). This course presents information on general waste management practices, specific practices for each of the six categories of waste commonly generated, and employee responsibilities in managing the waste from generation to disposal.

Preventing spills, fires, and explosions of hazardous materials during transportation is a major goal for the U.S. Department of Transportation (DOT). Therefore, DOT developed and adopted standards for packaging and identifying hazardous materials that are shipped by any mode of transportation. These standards must be followed if you ship hazardous chemicals or samples.

DOT standards must also be followed for any chemical, sample, or hazardous material you may take with you (or check in your baggage) on aircraft. Some materials (such as nitric acid) are considered so hazardous that they are totally prohibited from being shipped or carried on aircraft.

At the end of the training course, you will be able to:

- Describe general waste management practices that can be used
- Understand the types of waste that are common
- Explain general procedures for identification, storage, transportation, and disposal of the major waste streams.
- Classify materials as hazardous
- Assign hazard classes.

OSH – 6 MSDS and Chemical Hazard Communication

This course addresses the issues of evaluating and communicating hazards to workers. Evaluation of chemical hazards involves a number of technical concepts, and is a process that requires the professional experience of experts. This training course is designed so that employers who simply use chemicals, rather than produce or import them, are not required to evaluate the hazards of those chemicals.

At the end of the training course, you should be able to:

- Understand the requirements for manufacturers, distributors, and employers
- Understand staff responsibilities
- Determine ways to identify hazardous chemicals in the workplace
- Identify the key items/actions that must be implemented as part of the hazardous communication program

- How to use MSDS

OSH – 7 Respirators and Personal Protective Equipment

The content of this course was designed to provide the student with the information as required by the Occupational Safety and Health Administration's Standard for Respiratory Protection, which is found in the Code of Federal Regulations as Title 29 Part 1910.134. This course will help the student get the maximum benefit from wearing an air-purifying respirator in the workplace. To accomplish this, the following will be discussed:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator
- What the limitations and capabilities of the respirator are
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions
- How to inspect, put on and remove, use, and check the seals of the respirator
- What the procedures are for maintenance and storage of the respirator
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators

The course outline will include:

- Respirator Selection
- Medical Evaluations
- Fit Testing
- Use of Respirators
- Use of protective clothing
- Use of PPE
- Maintenance and Care

OSH – 8 Emergency Planning & Community Right to Know Act (EPCRA)

EPCRA requires that state emergency response commissions and local emergency planning committees be established to develop and implement plans for responding to emergencies.

Employers subject to these requirements must inform the state and local emergency response authorities on EPCRA- regulated chemicals that are present on-site and must work with the LEPC to plan for emergencies associated with the chemicals.

This course presents Emergency Planning and Community Right-to-Know Act (EPCRA) requirements. EPCRA was designed to inform emergency planners and the public of potential chemical hazards, including:

- Chemical quantities at the work site
- The specific hazards presented by the chemicals
- The fate of chemicals (e.g., used, discharged, sold)

- Any unplanned releases.

At the end of the training course, you should be able to:

- Identify the EPCRA-regulated chemicals used at your work site
- Understand the types of reporting that may be required under EPCRA
- Assist the Manager in determining whether the types and quantities of EPCRA- regulated chemicals present and/or used on-site exceed threshold amounts and trigger regulatory reporting
- Determine whether the work site has experienced a release of a chemical that requires notification to local emergency officials.

OSH – 9 Confined Space Entry

The content of this course was specifically developed for employees working for the petroleum industry. It will give students information to recognize, understand and develop a fully-functional permit-required confined space program to perform this type of work safely.

This course will help the student:

- Understand the definitions and hazards of confined spaces
- Understand their roles and responsibilities
- Understand the major elements of a confined space entry program

Course Outline will include:

- Roles and Responsibilities
- Identifying, Monitoring and Entering Confined Spaces
- The Permit System
- Your Responsibilities

OSH – 10 Ladder Safety

This course is no longer supported and is being replaced by a new Ladder Safety course with an 'All New Format'. The all new format includes the following enhancements:

- Improved user interface
- Help function
- Ability for the trainee to ask a question to a manager during the training course
- Book marking so the trainee can leave the course and pick up later
- Narration to improve the learning experience
- Closed caption for the hearing impaired

Slips, trips, and falls constitute the majority of general industry accidents. They cause 15% of all accidental deaths, and are second only to motor vehicles as a cause of fatalities. The OSHA standard for walking and working surfaces applies to all permanent places of employment.

This training course covers the following:

- General Requirements
- Guarding Floor and Wall Openings and Holes
- Fixed Industrial Stairs
- Portable Ladders
- Fixed Ladders
- Safety Requirements for Scaffolding
- Manually Propelled Mobile Ladders, Stands, and Scaffolds (Towers)
- Other Working Surfaces.

At the end of the training course, you should be able to:

- Identify the most commonly cited violations
- Understand how to guard against wall and floor openings and holes
- Understand the limitations of fixed industrial stairs and fixed ladders
- Understand the limitations of ladders and scaffolds.

OSH – 11 Electrical Safety

This training course deals with Occupational Safety and Health Administration (OSHA' s) standards for electrical safety design. These standards cover only electrical system parts that an employee would use or with which she/he could make contact. The purpose is to minimize potential workplace hazards by specifying electrical equipment and systems design characteristics.

This course covers the following:

- General Requirements
- Wiring Design and Protection
- Wiring Methods and Components
- Equipment for General Use.

At the end of the training course, you should be able to:

- Identify the general requirements for electrical safety design
- Define proper wiring design and methods
- Define proper installation and protection of electrical equipment and components
- Identify unsafe wiring design, methods, equipment, protection, and components.

OSH – 12 Cold and Heat Stress Management

The content of this course has been specifically designed for workers who face the risk of heat-related illnesses on the job. At the conclusion of this course you will:

- Understand the dangers of cold and heat stress;
- Recognize the signs and symptoms of the various stages of cold and heat stress;

- And, understand potential strategies to mitigate the effects of cold and heat and prevent heat stress.

The course will teach Overview, Stages of Cold and Heat Stress, Controlling Cold and Heat Stress, and Responsibilities. The student's comprehension of the training material is reviewed throughout the course with end of module quizzes to help the learning process.

OSH – 13 Fall Protection

The content of this course was designed to provide employees with the information required by the Occupational Safety and Health Administration's standard for Fall Protection in Construction which is found in the Code of Federal Regulations as Title 29 Part 1926 Subpart M. The content of this course was designed to provide you with information as it relates to slips, trips and falls. To accomplish this, we will be discussing major components, including:

- How to recognize the major causative factors for slips, trips and falls
- How to be familiar with strategies that can be implemented in the workplace to reduce

The course will teach Definitions and Causes, Preventive Measures, and Responsibilities. The student's comprehension of the training material is reviewed throughout the course with end of module quizzes to help the learning process.

Our objective is to give the student the information needed to recognize and understand fall hazards, as well as the work procedures necessary to perform work safely when working at heights. Course Outline will include:

- Fall Protection Strategies
- Equipment Use, Care and Maintenance
- Your Responsibilities

The student's comprehension of the training material is reviewed throughout the course with end of module quizzes to help the learning process.

OSH – 14 Lockout/Tagout

This course is no longer supported and is being replaced by a new Control of Hazardous Energy course with an 'All New Format'. The all new format includes the following enhancements:

- Improved user interface
- Help function
- Ability for the trainee to ask a question to a manager during the training course
- Book marking so the trainee can leave the course and pick up later
- Narration to improve the learning experience
- Closed caption for the hearing impaired

OSH – 15 Hearing Conservation

This course was designed to provide the student with the information as required by the Occupational Safety and Health Administration's Noise Standard, which is found in the Code of Federal Regulations as Title 29 Part 1910.95. To accomplish this, the following will be discussed:

- The effects of noise on hearing
- The purpose of hearing protectors
- The advantages and disadvantages of various types of hearing protectors
- The proper selection, fitting, use and care of hearing protectors
- The purpose of audiometric testing

Course Outline will include:

- Hearing Loss
- Measuring Sound
- Your Company's Hearing Loss Program
- Your Responsibilities

The student's comprehension of the training material is reviewed throughout the course with end of module quizzes to help the learning process.

OSH – 16 Machine Safety

Crushed hands and arms, severed fingers, blindness is a list of possible machinery-related injuries is as long as it is horrifying. There seems to be as many hazards created by moving machine parts as there are types of machines. Therefore, safeguards are essential for protecting workers from needless and preventable injuries.

Any machine part, function, or process which may cause injury must be safeguarded. Where the operation of a machine or accidental contact with it can injure the operator or others in the vicinity, the hazard must be either controlled or eliminated.

At the end of this training course, you should be able to:

- Identify and define types of mechanical motions and actions along with where mechanical hazards occur
- Identify the requirements for safeguarding
- Understand how the various methods of machine guarding protect employees.

OSH – 17 Welding Cutting and Brazing

Welding, cutting, and brazing are exceptionally dangerous. Compressed gases are often used to create an extremely hot flame. Different welding techniques can cause other hazards. The welder can be injured or cause damage to the work area in numerous ways including fire, explosion, gas, and fume hazards. Good work practices must be followed in all welding, cutting, and brazing techniques to prevent injuries, fires, and explosions.

This course covers the following:

- Compressed Gases
- General Requirements
- Oxygen-Fuel Gas Welding and Cutting
- Arc Welding and Cutting
- Resistance Welding.

At the end of the training course, you should be able to:

- Understand the general requirements concerning compressed gases
- Identify the general safety requirements for all types of welding
- Understand the general characteristics for the various types of welding
- Identify the specific safety requirements for:
 - Oxygen-fuel gas welding and cutting
 - Arc welding and cutting
 - Resistance welding.

OSH – 18 Air Monitoring Protection

This course presents information on air monitoring to help personnel protect themselves from hazardous contaminants in the air. Air monitoring devices are used to evaluate the following types of atmospheres.

- Flammable/explosive
- Toxic
- Oxygen-deficient and oxygen-enriched
- Radioactive
- Biological

At the end of the training course, you should be able to:

- List the purpose and uses of air monitoring
- Recognize the types of air monitoring methods
- Identify various types of air monitoring equipment
- Recognize the characteristics of the various air monitoring methods
- Identify Air monitoring results

OSH – 19 Laboratory Safety

This training course covers OSHA compliance requirements of 29 CFR 1910.1450. Employees conducting laboratory activities encounter a wide variety of potential health and safety hazards. Exposure to hazards will vary depending on the type and duration of the activity. Planning and preparation for laboratory activities is an important part of ensuring a safe and healthful laboratory work environment.

The planning and preparation process includes techniques and procedures for:

- Researching and identifying the potential for occupational hazards and risks
- Evaluating risks/hazards and minimizing the potential for exposure
- Selecting and maintaining appropriate protective equipment, clothing, and other hazard control measures.

At the end of the training course, you should be able to:

- Identify key elements that must be considered when planning and preparing for laboratory activities.
- Reviewing the laboratory's Chemical Hygiene Plan (CHP)
- Conducting hazard assessments
- Selecting appropriate control measures (administrative, engineering control measures, personal protective equipment (PPE), etc.)
- Identifying emergency procedures.

SIN 27-400 RADIOLOGICAL PROTECTION AND RADIATION SAFETY

RPRS – 1 Radiological Worker Training

The U.S. Department of Energy (DOE) requires DOE staff and contractors to receive radiation safety training, commensurate with the level of potential occupational radiological hazards. These courses are offered quarterly and are conducted concurrently. Students would take the course that is appropriate to their facility requirements.

Rad Worker I provides appropriate training for individuals who work with radioactive material or radiation producing devices that do not produce high radiation fields. Students will learn to work safely in areas containing radioactive materials, utilize radiation work permits, and demonstrate radiation monitoring practices. Successful course completion also includes passing a written examination.

Rad Worker II includes all of the training for Rad Worker I plus additional training appropriate for individuals who might enter high radiation or contaminated areas or who may work with unsealed quantities of radioactive materials. This class will include exercises for donning and removing protective clothing and performing radiation frisking.

Course outline will include:

- Introduction and Course Overview
- Radiation Fundamentals
- Biological Effects
- Radiological Limits and Administrative Control Levels
- ALARA Program
- Personnel Monitoring Programs
- Radiological Access Controls & Postings
- Radiation Emergencies
- High & Very High Radiation Area Training Radiological Contamination Control

RPRS – 2 Shipping Radioactive Materials with Radiation Fundamentals

This course is designed to assure that students receive training in radiation fundamentals, general awareness and familiarization of DOT's HAZMAT regulations, function specific training concerning the preparation for shipment and movement of radioactive materials, general safety training, and security awareness training.

This course is intended to provide training to help meet training requirements specified in Title 49 Code of Federal Regulations (CFR), Part 172, Subpart H of the U.S. Department of Transportation, and regulations of the U.S. Nuclear Regulatory Commission (NRC), Agreement States, and other governmental agencies.

The responsibilities for HAZMAT safety are shared by everyone who handles HAZMAT shipments from the shipper to the carrier. Training is the best means of preventing hazardous material incidents and HAZMAT Safety begins with you! We hope you choose this course to meet the regulatory training requirements for understanding the rules for shipping radioactive materials.

Course outline will include:

- DOT HAZMAT Training Introduction
- Fundamentals of Radiation Safety
- Principles of Radiation Safety
- Security Awareness
- General Awareness and Familiarization
- Function Specific Requirements for Limited Quantities

The student will be able to answer the following questions:

1. What is required to transport limited quantity of radioactive materials from one location to another?
2. How much radioactivity can I ship in a single package?
3. How do I package limited quantity radioactive material for shipping?
4. Do I need to include a shipping paper?
5. How do I label and mark my package?
6. What are the allowable radiation levels from the package?
7. Do I need special training in order to ship radioactive materials?

RPRS – 3 Characterization, Decontamination, and Decommissioning

This 5-day workshop is designed to enable you to manage a facility through the decommissioning process. The workshop includes environmental and radiological site characterization, site remediation, as well as decontamination and decommissioning. This workshop is comprised of two modules. The Environmental Module can be taken separately as a three-day course concentrating on the front end of the process, i.e., radiation data collection and environmental site characterization. The Decontamination and Decommissioning (D&D) Module can also be taken separately as a three-day course on the back end of the process, i.e., site decontamination and decommissioning.

The Environmental Module will cover all aspects of radiological site characterization activities, including radiation detection instrumentation, environmental sampling, and the use of the MARSSIM for survey design. Following site characterization, data are typically evaluated in the form of a radiological risk assessment. Several risk assessment methodologies, including RESRAD, RESRAD-BUILD, and CERCLA risk assessments from EPA's risk assessment guidance, will be covered.

The D&D Module will cover D&D work plan development, a review of remedial technologies, NRC's decommissioning standard and the D&D code, MARSSIM-type final status surveys, and decommissioning report development.

Participants will receive our Site Characterization, Decontamination, and Decommissioning Manual that includes relevant Federal regulations and selected Regulatory Guides. Course outline will include:

- Introduction
- Environmental Remediation, Introduction and Historical Perspective
- Decommissioning Overview
- Radiation Surveys and Sampling
- Radiation Surveys and Sampling (continued)
- Radiation Detection Instrumentation
- Radiation Instrumentation - New Technology Update
- Counting Statistics
- Interpreting Radiation Measurements and Quality Assurance
- Annual Off-site Doses from Release of Reactor Effluents
- Radiological Risk Assessment (USEPA RAGS Methodology)
- RESRAD
- MARSSIM Overview
- MARSSIM Survey Types
- RESRAD-BUILD
- Lessons Learned from Chernobyl Accident
- Remediation Program Components
- Decommissioning Regulations
- Safety and Health for D & D Operations
- Establishing Derived Concentration Guideline Limits (DCGLs)
- Decommissioning Wastes Management
- Low-Track™ Software
- Decommissioning Cost Estimates
- D & D Code
- Final Status Surveys and Compass Software
- D & D Case Studies
- Review and Course Critique

RPRS – 4 Radioactive Waste Management and Disposal

The goal of any radioactive waste management program is to reduce or eliminate health effects caused by exposure to radiation. The generation of radioactive waste is a normal result of the use of unsealed radioactive materials. Equipment and materials used may become contaminated. Unneeded sealed sources may be considered waste. When no longer needed these items are discarded. The safe and proper disposal of radioactive wastes reduces the chance of the spread of contamination and assures that workers are not exposed to radiation. It also assures that members of the public are not unnecessarily exposed to the radiation emitted from these wastes due to contamination of the environment and ground water.

Course outline will include:

- What is Radioactive Waste?
- Waste Classification
- Low-Level Waste
- Mixed Waste
- TRU Waste
- HLW
- NARM Waste
- Exemptions
- Regulations
- Decay-in-Storage and Re-uses
- Disposal
- Waste Acceptance Criteria
- Waste Forms, Laboratory Analyses, and Survey
- Record Keeping

RPRS – 5 Basic Radiation Safety

This is an introductory level course in the fundamentals of radiation safety intended to meet training requirements for new radiation workers. It is based on the popular 8-hour class presented to several thousand new workers at the Academy's training center and around the country. This course can also be taken in separate modules for annual refresher training (see below).

Basic Radiation Safety includes a review of common perceptions of radiation and an introduction into radiation, radioactivity, and radiation protection. You will gain a solid, basic working knowledge of the origins of radiation, different types of radiation, radiation interactions and health effects, regulations, radiation instruments, how to conduct surveys, and the actions you can take to protect yourself from unnecessary exposure. The course consists of ten modules. Each module is intended to build upon the previous ones to provide you with the knowledge necessary to use radiation and radioactive material safely.

Course outline will include:

- Radiation Risk Perceptions
- Sources of Radiation

- Atomic Structure and Radioactivity
- Interaction of Radiation with Matter
- Radiation Health Effects
- Radiation Protection Regulations
- Radiation Detection Instruments
- Radiation Safety Surveys
- Radioactive Wastes
- Radiation Safety Programs

RPRS – 6 Radiation Safety Refresher Training

This course reviews common perceptions of radiation and the different types and sources of radiation. You will also gain an understanding of atomic structure, radiation interactions, and health effects. The course consists of five modules. Each module is intended to build upon the previous ones to provide you with an understanding of radiation and its effects.

Course outline will include:

- Introduction
- Sources of Radiation
- Atomic Structure and Radioactivity
- Interaction of Radiation with Matter
- Radiation Health Risks

RPRS – 7 Radioactive Material Package Receipt and Inspection

This course will review the regulations governing the receipt and inspection of radioactive material packages. It will present information on survey techniques, recommend procedures to follow for conducting package inspections, and review actions you are required to take if radioactive contamination or unusual radiation levels are discovered.

This course does not meet DOT Hazardous Material training requirement for shipping or transporting radioactive materials.

Course outline will include:

- What should you do when a package of radioactive material is delivered to your facility?
- Is it the correct material?
- Is the package contaminated?
- Is it leaking radioactive material which may contaminate your facility?
- What are the radiation levels emitted from the package? Is it safe to store without shielding?
- The Do's and Don'ts of receiving a package
- How to respond to receiving a package
- Different practices for different radioactive material
- Time requirements that need to be met and why

SIN 27-400 EMERGENCY RESPONDERS

ER – 1 National Incident Management (NIM) System Overview

This introductory web-based course addresses basic information on the current requirements, guidance and performance criteria associated with NIMS through text, audio, animations, and interactive review.

NIMS uses a unified national framework for incident management. This framework forms the basis for interoperability and compatibility that will, enable public and private organizations to conduct well-integrated and effective incident management operations.

Upon successful completion of this course, students will be able to:

- Describe key concepts and principles underlying NIMS.
- Identify benefits of using ICS as the national incident management model.
- Describe when it is appropriate to institute an Area Command.
- Describe when it is appropriate to institute a Multiagency Coordination System.
- Describe benefits of using a Joint Information System (JIS) for public information.
- Identify ways in which NIMS affects preparedness.
- Describe how NIMS affects how resources are managed.
- Describe the advantages of common communication and information management systems.
- Explain how NIMS influences technology and technology systems.
- Describe the purpose of the NIMS Integration Center

This course is for DOE/NNSA personnel and DOE/NNSA-contractor and others that are responsible for establishing the site/facility emergency response organization (ERO). Supervisors and personnel that perform response functions that would be integrated via Incident Command Management/Incident Command System.

ER – 2 Emergency Operations for Senior Federal Official

This course is a basic introduction to the duties and functions of the Senior Federal Official during an Incident of National Significance. It is a pre-requisite to the Senior Federal Official Practical Application Workshop. The course covers basic legislation and procedures, as well as tracking Senior Federal Official duties and necessary situational awareness through each stage of the response process. The course also provides printable versions of optional checklists and recommended forms used to communicate with team members, the Emergency Response Officer, and to record the situation, team progress, and other important information in the Senior Federal Official log, which serves as a resource for the after-action process. The content of this training course will include:

- General Roles and Responsibilities of the Senior Federal Official
 - Understand and describe the role played by the Senior Federal Official during a response to an Incident of National Significance.
 - Delineate the chain of command for the deployed Senior Federal Official during a crisis.
 - Detail the four conditions under which the Department of Homeland Security will act to coordinate a federal emergency response.

- Demonstrate an understanding of the types of incidents in which the Federal Agency is the coordinating agency.
- Alert/Activation/Notification
 - Using the Alert checklist as a guide, be able to detail the role of Senior Federal Official in alerting the team and informing the ERO.
 - Using a Warning/Notification Order form, detail the required information for logging the response process.
- Mobilization
 - Using the Mobilization checklist as a guide, be able to detail the role of Senior Federal Official in mobilizing the team and informing the ERO.
 - Using a Situation Report form, detail the required information to continue logging the response process and informing the ERO of status and progress.
- Conduct of Operations
 - Using the Operations checklist as a guide, detail the role of Senior Federal Official in the continuing response of the team and in informing the ERO.
 - Detail the required information and Senior Federal Official responsibilities during initial response activities.
- Redeployment
 - Using the Redeployment checklist as a guide, describe the role of Senior Federal Official in redeploying the team and informing the ERO.

ER – 3 Emergency Classification Decision-Making

This videotaped workshop presents techniques and examples of real-world situations in which necessary information needed for the classification decision is absent, incomplete, inconsistent, or contradictory.

Emergency Action Levels (EALs) derived from hazards assessments are the principal tools for making timely emergency event classifications and initiating protective actions and emergency notifications. However, sometimes information necessary to use EALs is not available, making emergency classification difficult. When event information available to the decision-maker does not relate directly with specific EALs, confusion and indecision are the likely results. Concern about “wrong” decisions delays the decision process further.

Upon successful completion of the workshop, students will:

- Understand the differences between decision-making in day-to-day activities and decision-making in an emergency. Recognize that, even with good EALs and procedures, decision-making may not be straightforward.
- Understand how making decisions during emergencies when information is absent, incomplete, inconsistent, or contradictory can be more straightforward with the use of decision-making tools and techniques designed to help produce logical decisions.

- Make classification decisions using scenarios from actual events from across the DOE complex to demonstrate the effectiveness of the decision-making tools and techniques taught.

The target audience for this workshop is DOE Federal and DOE contractor management, e.g., building emergency directors, incident commanders, shift supervisors. These people are responsible for decisions about emergency classification and personnel protective actions within the first hour of an emergency event. A secondary target audience is emergency planners, emergency response technical staff, and emergency response trainers.

ER – 4 Emergency Management Hazards Assessment

In general, you'll receive comprehensive, detailed training in the hazards assessment process and the use of assessment results in emergency planning and preparedness. This includes how to model hazardous-material releases and how to calculate consequences. Day 1 focuses on applying the DOE Emergency Management Guide (EMG) methods to real-world hazardous-material analysis problems, setting up analyses, and calculating consequences. Day 2 addresses selecting cases for analysis, developing the specific information needed to support emergency planning and preparedness, and using data from SARs and other analyses most effectively. Day 3 covers how to use assessment results to create good emergency action levels (EALs) and support protective action planning.

Upon successful completion of this course, you will be able to do the following:

- Describe the overall concept and purposes of hazards assessment
- Describe the Emergency Management Guide's recommended approach for analyzing potential releases of hazardous material
- Model and analyze the release of toxic chemicals and radioactive materials (including pressurized gases, liquids, packaged waste, and solid materials)
- Select cases for analysis and modify them to produce the desired hazards assessment outputs
- Identify and document the key outputs from an analysis
- Identify and use information from other analyses (SARs, BIOs, EISs) in hazards assessments
- Describe the principles and methods for developing Emergency Planning Zones (EPZs), as outlined in DOE guidance
- Describe how Emergency Action Levels (EALs) are developed and the purpose EALs serve in emergency management programs
- Describe the desirable qualities of EAL statements
- Use hazards assessment results to develop good EALs
- Develop and document the logic for an integrated EAL set
- Describe the principles of protective action planning for hazardous material emergencies
- Develop planned (default) protective actions for specific events/conditions and EALs

The primary audience is DOE and supporting contractor analysts who perform or contribute to hazards assessments and emergency planning and preparedness staff who use the assessment results. The course might also be useful to managers and supervisors responsible for directing hazards assessment or emergency planning efforts, as well as to building/facility managers and facility emergency planning coordinators.

27-500 PRICE LIST

SIN 27-500 - COURSE DEVELOPMENT		
	Course/Task/Labor Hours	Hourly Rate
1	Senior Program Manager	\$ 176.40
2	Training/Project Manager II	\$ 148.95
3	Training/Project Manager I	\$ 130.50
4	Subject Matter Expert	\$ 235.80
5	Corp. Tech. Planning Mgr	\$ 166.50
6	Advanced Engineer	\$ 117.90
7	Senior Engineer	\$ 98.10
8	Engineer	\$ 90.90
9	Associate Engineer	\$ 75.60
10	Assistant Engineer	\$ 61.20
11	Junior Engineer	\$ 52.20
12	Network Engineer	\$ 102.60
13	Adv Sys Programmer	\$ 117.90
14	Sr Systems Programmer	\$ 100.80
15	Systems Programmer	\$ 86.40
16	Assoc Sys Programmer	\$ 73.80
17	VTC Support Specialist	\$ 77.40
18	Configuration and Data Mgt Analyst	\$ 33.30
19	Principal Tech Specialist	\$ 112.50
20	Web Applications Specialist	\$ 92.70
21	Web Design Specialist	\$ 74.70
22	Senior Management/Program Analyst	\$ 138.60
23	Management/Program Analyst	\$ 64.80
24	Principal Instruction Technologist	\$ 112.50
25	Instruction Technologist	\$ 70.20
26	Principal Programmer	\$ 118.80
27	Communication Specialist	\$ 71.10
28	Research Associate/Technical Writer/Editor	\$ 72.00
29	Desktop Publication Specialist/Graphic Artist	\$ 47.25
30	Public Outreach Specialist	\$ 54.00
31	Training Specialist III	\$ 98.10
32	Training Specialist II	\$ 84.60
33	Training Specialist I	\$ 70.65
34	Analyst IV	\$ 82.80
35	Analyst III	\$ 71.10
36	Analyst II	\$ 65.70
37	Analyst I	\$ 47.70
38	Administrative Specialist - III	\$ 60.00
39	Administrative Specialist - II	\$ 52.20
40	Administrative Specialist I/Clerk	\$ 36.00

LABOR CATEGORY DESCRIPTIONS

1. Senior Program Manager

Minimum/General Experience: Minimum of fifteen (15) years of progressively more responsible technical and project management experience in one or more of the required specialty areas.

Functional Responsibilities: Manages contract operations involving multiple projects and personnel at diverse locations. Authorized to negotiate on behalf of the company and contractually commit company resources to the contract. Organizes, directs, and coordinates the planning and execution of all contract support activities, and provides a liaison with the client.

Minimum Education: Master's degree from an accredited university in a technical discipline or equivalent¹.

2. Training/Project Manager II

Minimum/General Experience: Minimum of ten (10) years of progressively more responsible technical and project management experience in one or more of the required specialty areas. Must be a senior member of the contractor's organization.

Functional Responsibilities: Manages contract operations involving multiple projects and personnel at diverse locations. Organizes, directs, and coordinates the planning and execution of contract support activities, and assembles and recruits resources necessary for the performance of assigned projects. Supervises lower level trainers and plans for, organizes, and conducts logistics training. May formulate and develop plans, procedures, and programs to meet specific training needs and problems.

Minimum Education: Master's degree from an accredited university in a technical discipline or equivalent¹.

3. Training/Project Manager I

Minimum/General Experience: Minimum of eight (8) years of progressively more responsible technical and project management experience in one or more of the required specialty areas.

Functional Responsibilities: Manages the execution of projects. Organizes, directs, and coordinates planning and execution of project activities; manages resources toward the effective completion of projects within budget; ensures consistent delivery of products according to schedule. Supervises lower level trainers and plans for, organizes, and conducts training. May formulate and develop plans, procedures, and programs to meet specific training needs and problems. Develops and compiles training manuals and other training aids, and obtains equipment, training films, and other visual aids. The Training Manager selects, trains, and supervises the personnel of the training staff. Maintains records of training activities and monitors effectiveness of programs. May analyze training requirements for specific projects.

Minimum Education: Bachelor's degree from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

4. Subject Matter Expert

Minimum/General Experience: Master's degree from an accredited university or college in subject-matter technical or business area, or equivalent¹.

Functional Responsibilities: Provide high level functional system analysis, design, integration, documentation, and implementation on exceptionally complex problems requiring extensive knowledge of the subject matter. Due to emerging technology and or specialized skill, amount of experience is not relevant.

Minimum Education: Masters degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent₁.

5. Corp. Tech. Planning Mgr

Minimum/General Experience: Minimum of ten (10) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Under general direction, provides technical assistance to facilitate planning and directing the design, installation, modification and operation of an information system capability. Evaluates vendor proposals for purchases of hardware, software, and technical services to assure adherence to technical specifications. Analyzes proposed and actual projects in terms of the feasibility of using information systems. Prepares long- and short-range plans for application selection, software systems development, system maintenance, production activities, and for necessary support resources. Plans and recommends changes to the capacity of the operating system and its configuration. Prepares cost estimates for current and proposed projects reflecting the equipment and staff requirements.

Minimum Education: Masters degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent¹.

6. Advanced Engineer

Minimum/General Experience: Minimum of fifteen (15) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Plans and evaluates complex systems and makes recommendations for implementing new technologies and the resources required to maintain and/or expand service levels. Provides highly skilled technical assistance in systems planning, engineering and architecture. Develops technical standards and interface applications; identifies and evaluates new products; provides resolutions for engineering problems. May interface with vendors to identify and purchase hardware and software. May function as lead position for other engineers.

Minimum Education: Bachelor's degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent¹.

7. Senior Engineer

Minimum/General Experience: Minimum of ten (10) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Develops software engineering solutions to address user needs. Interfaces with users to define needs. Designs, develops, and tests complex software programs. Primary responsibilities include technical feasibility studies and design phases of projects as well as actual system implementation. Requires strong systems engineering and programming skills.

Minimum Education: Bachelor's degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent¹.

8. Engineer

Minimum/General Experience: Minimum of five (5) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Under general supervision, develops solutions to address user needs. Interfaces with users to define requirements. Assists in the design, development, and testing of software programs. Involved in the implementation and testing of projects. Requires knowledge of applications and systems programming.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

9. Associate Engineer

Minimum/General Experience: Minimum of three (3) years progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Under immediate supervision, assists in the design, implementation and maintenance of applications and operating system software. Assists in the development, testing, and monitoring of interface programs.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

10. Assistant Engineer

Minimum/General Experience: Minimum of two (2) years progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Under immediate supervision, assists in the implementation and maintenance of applications and operating system software. Assists in the development, testing, and monitoring of simple interface programs.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

11. Junior Engineer

Minimum/General Experience: Minimum of one (1) year of experience.

Functional Responsibilities: Under immediate supervision, assists in the implementation and maintenance of applications and operating system software. Assists in the testing and monitoring of simple interface programs, and in the installation of computer and communication hardware and software.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

12. Network Engineer

Minimum/General Experience: Must have eight (8) years of general experience including a minimum of six (6) years of specialized experience in the area of expertise. If the particular area of expertise is new state-of-the-art technology, the specialized experience may be less than six (6) years and more consistent with the age of the technology.

Functional Responsibilities: Provide independent services and leadership in specialized technical areas of networking. Provides expert advice and assistance in state-of-the-art software/hardware solutions involving hardware of various capacities, multiple operating environments, database management systems specialized software, data communications facilities and protocols including Value Added Networks, fourth generation technologies, and complex software tools or packages. Performs analyses and studies, enhances or implements system software solutions, performs test and acceptance phases.

Minimum Education: Bachelor's degree from an accredited university or college in a related engineering, computer science, physical science, or technical field, or equivalent¹.

13. Advanced System Programmer

Minimum/General Experience: Fifteen (15) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Responsible for systems programming activities, Reviews systems development project requests and coordinates schedules and related departmental activity. Provides overall systems programming direction and guidance to assigned project managers. Reviews and evaluates work of staff and prepares performance reports. Prepares activity and progress reports regarding all programming activities.

Minimum Education: Bachelor's degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent¹.

14. Sr. Systems Programmer

Minimum/General Experience: Ten (10) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Formulates/defines system scope and objectives. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Prepares detailed specifications from which system programs will be written. Designs, codes, tests, debugs and documents system programs. Competent to work at the highest technical level of all phases of programming activities. May be responsible for completion of a phase of a project. Regularly provides guidance and training to less experienced programmers.

Minimum Education: Bachelor's degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent¹.

15. Systems Programmer

Minimum/General Experience: Minimum of five (5) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Under general supervision, formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Prepares detailed specifications from which programs will be written. Designs, codes, tests, debugs, documents and maintains those programs. Competent to work on most phases of applications and programming activities.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

16. Associate Systems Programmer

Minimum/General Experience: Minimum of three (3) years progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Under immediate supervision, assists in collecting and defining user requirements to develop or modify information systems. Assists in preparing specifications from which programs will be written. Designs, codes, tests, debugs, documents, and maintains those programs.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

17. VTC Support Specialist

Minimum/General Experience: Minimum of five (5) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Provides total life cycle VTC solutions to clients, including requirements analysis, ordering, testing, installation, integration, training, and help desk services. Performs new technology and equipment research and development to ensure that the client always has the best possible solution. Recommends and performs upgrades or replacements.

Minimum Education: Bachelor's degree or higher from an accredited university in engineering, computer science, a related technical discipline, or equivalent¹.

18. Configuration and Data Management Analyst

Minimum/General Experience: Minimum of two (2) years of related technical experience. Must have good oral and written communication skills.

Functional Responsibilities: Identifies requirements for and assists clients in developing and implementing configuration management systems. Assists in preparation of basic system specifications including procedures for establishing change reporting requirements, authorization, and documentation. Analyzes change orders and interprets policies for reporting product design changes. Organizes

configuration management documents required for audits and client meetings. Prepares change packages for inspections by client personnel. Maintains appropriate configuration schedules, budgets and design records; prepares and distributes status accounting reports.

Minimum Education: Bachelors degree from an accredited college or university in a related technical discipline or equivalent¹.

19. Principal Technical Specialist

Minimum/General Experience: Minimum of fifteen (15) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Plans and evaluates complex systems and makes recommendations for implementing new technologies and the resources required to maintain and/or expand service levels. Provides highly skilled technical assistance in systems planning, engineering and architecture. Develops technical standards and interface applications; identifies and evaluates new products; provides resolutions for engineering problems. May interface with vendors to identify and purchase hardware and software. May function as lead position for other technical staff members.

Minimum Education: Bachelor's degree from an accredited university in a related technical discipline or equivalent¹.

20. Web Applications Specialist

Minimum/General Experience: Minimum of five (5) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Formulates/defines web application system scope and objectives. Devises or modifies procedures to solve complex problems using web-based applications, considering computer equipment capacity and limitations, operating time and form of desired results. Prepares detailed specifications from which system web-based programs will be written. Designs, codes, tests, debugs and documents web based programs. Requires knowledge of applications and systems web-based programming.

Minimum Education: Bachelor's degree or higher from an accredited university or college in engineering, computer science, a related technical discipline, or equivalent¹.

21. Web Design Specialist

Minimum/General Experience: Minimum of three (3) years of progressively more responsible technical experience in one or more of the required specialty areas.

Functional Responsibilities: Responsible for web design, coding, implementation, testing, debugging, maintenance, and continued user support. Interfaces with users to determine scope of project and best web design medium. Executes web design projects and coordinates web production scheduling. Ensures that web design projects are completed on time, within budget and to user's satisfaction. Trains other web designers in proper use of web design software. Troubleshoots websites to ensure proper functionality. Performs regular update and website maintenance.

Minimum Education: Bachelor's degree from an accredited university or college in a related technical discipline, or equivalent¹.

22. Senior Management/Program Analyst

Minimum/General Experience: Must have at least ten (10) years of experience directly related to program planning, cost estimation, project control, and performance evaluation, and having knowledge and understanding of applicable technical concepts and practices.

Functional Responsibilities: Analyzes information processing and design requirements across a range of capabilities including numerous engineering, technical, business, and records management functions. Develops strategic plans for organizational units. Analyzes problems, requirements, and the information to be processed. Defines the problem/support needs, and develops requirements and program specifications Coordinates closely with scientists and engineers to ensure implementation of program specifications. Develops, in conjunction with functional users, alternative solutions.

Minimum Education: Bachelor's degree from an accredited university or college in a related engineering, computer science, physical science, or technical field, or equivalent¹.

23. Management/Program Analyst

Minimum/General Experience: Must have at least five (5) years of experience directly related to program planning, cost estimation, project control, and performance evaluation, and having knowledge and understanding of applicable technical concepts and practices.

Functional Responsibilities: Analyzes information processing and design requirements across a range of capabilities including numerous engineering, technical, business, and records management functions. Develops strategic plans for organizational units. Analyzes problems, requirements, and the information to be processed. Defines the problem/support needs, and develops requirements and program specifications Coordinates closely with scientists and engineers to ensure implementation of program specifications. Develops, in conjunction with functional users, alternative solutions.

Minimum Education: Bachelor's degree from an accredited university or college in a related engineering, computer science, physical science, or technical field, or equivalent¹.

24. Principal Instruction Technologist

Minimum/General Experience: Minimum of eight (8) years of general experience in instructional technology areas, including five (5) year experience in managing or leading a team in a task or project.

Functional Responsibilities: Review training programs and identify training required by law and/or agency policies. Develop technology-based delivery methods of learning activities (Web-based, CD-ROM, etc.). Ensure that mandatory training needs are met on time, and utilize the Kirkpatrick Model for training evaluation.

Minimum Education: Bachelor's degree from an accredited university or college in an instructional systems design, adult education, human resource management, or related field, or equivalent¹.

25. Instruction Technologist

Minimum/General Experience: Minimum of five (5) years of general experience in instructional technology areas.

Functional Responsibilities: Review training programs and identify training required by law and/or agency policies. Develop technology-based delivery methods of learning activities (Web-based, CD-ROM, etc.). Ensure that mandatory training needs are met on time, and utilize the Kirkpatrick Model for training evaluation.

Minimum Education: Bachelor's degree from an accredited university or college in an instructional systems design, adult education, human resource management, or related field, or equivalent¹.

26. Principal Programmer

Minimum/General Experience: Must have at least eight (8) years of experience in software systems development from design through test and implementation to include two years experience as programming team leader. Must be competent in at least three programming languages to include two higher order-programming languages.

Functional Responsibilities: As an expert programmer/analyst, consults with clients to learn and define their business requirements or problem areas and use technical expertise to provide solutions to clients' needs. Prepares program specifications, helps with preparation of user documentation and with system implementation. Analyzes, designs, develops, implements, and maintains client server applications over distributed networks and related protocols for various systems. Converts and/or ports fully developed code over to other platforms using different processor architectures or operating systems. May guide programmer/analysts at a lower level and the technical personnel on assigned work.

Minimum Education: Bachelor's degree from an accredited university or college in a related engineering, computer science, physical science, communications related or technical field, or equivalent¹.

27. Communication Specialist

Minimum/General Experience: Must have at least three (3) years of experience directly related to communication, outreach, facilitation, program planning, cost estimation, project control, and performance evaluation, and having knowledge and understanding of applicable technical concepts and practices.

Functional Responsibilities: Plans installations, transitions, and cutovers of network components and capabilities. Coordinates requirements and schedules with users and suppliers. Installs, tests, and operates voice and data network communications equipment, including hardware and software for network systems (e.g., switches, modems, controllers, terminals, and multiplexers). Uses communications hardware test and monitoring equipment and analyzes the results.

Minimum Education: Bachelor's degree from an accredited university or college in a related engineering, computer science, physical science, or technical field, or equivalent¹.

28. Research Associate & Technical Writer/Editor

Minimum/General Experience: Minimum of five (5) years of general experience in supporting technical staff and/or developing technical reports including two (2) years of specialized experience.

Functional Responsibilities: Provide support to project personnel in the areas of literature searches, basic analyses, and technical writing.

Minimum Education: Bachelor's degree from an accredited university or college in a related engineering, computer science, physical science, communications, or technical field, or equivalent¹.

29. Desktop Publication Specialist/Graphic Artist

Minimum/General Experience: Must have capabilities and three (3) years of demonstrated experience in providing graphic support to technical organizations utilizing the latest technologies.

Functional Responsibilities: Provide support to project personnel in the areas of report layout and design, color selections, and development of graphic materials. Coordinate and oversee production of reports, visual materials, and other documents.

Minimum Education: Bachelor's degree from an accredited university or college in a graphic design, communications, or technical field, or equivalent¹.

30. Public Outreach Specialist

Minimum/General Experience: Must have a minimum of three (3) years of experience in the appropriate specialty area.

Functional Responsibilities: Must be technically competent in at least two of the following technical disciplines: environmental justice, information and communications systems, systems engineering, environmental policy, management, environmental science, earth science, waste management, environmental restoration, safety & health, or risk communication.

Minimum Education: Bachelor's degree from an accredited university or college in a related general science, liberal art, psychology, communication, science, or business field, or equivalent¹.

31. Training Specialist III

Minimum/General Experience: Ten years of directly related experience including management or leadership roles in successful efforts developing training programs, course curriculum, or training methodologies. Demonstrated the ability to lead highly qualified staffs in complex training related projects.

Functional Responsibilities: Conducts the research necessary to develop and revise training courses and prepares appropriate training catalogs. Prepares all instructor materials (course outline, background material, and training aids). Prepares all student materials (course manuals, workbooks, handouts, completion certificates, and course critique forms). Trains personnel by conducting formal classroom courses, workshops, and seminars.

Minimum Education: Master's degree from an accredited university in a technical discipline or equivalent¹.

32. Training Specialist II

Minimum/General Experience: Eight years of directly related experience including leadership roles in successful efforts developing training programs, course curriculum, or training methodologies

Functional Responsibilities: Assists the manager in the research to develop and revise training courses and prepares appropriate training catalogs. Prepares all instructor materials (course outline, background material, and training aids). Prepares all student materials (course manuals, workbooks, handouts, completion certificates, and course critique forms). Trains personnel by conducting formal classroom courses, workshops, and seminars.

Minimum Education: Bachelor's Degree from an accredited university in a technical discipline or equivalent¹

33. Training Specialist I

Minimum/General Experience: Three years of directly related experience developing course curriculum, or training materials. Demonstrated the ability to lead highly qualified staffs in complex training related projects.

Functional Responsibilities: Prepares instructor materials (background material and training aids). Prepares all student materials (course manuals, workbooks, handouts, completion certificates, and course critique forms). Provides support in conducting classroom courses, workshops, and seminars.

Minimum Education: Bachelor's Degree from an accredited university in a technical discipline or equivalent¹

34. Analyst III

Minimum/General Experience: Must have eight year experience in logistic training. Conducts the research necessary to develop and revise training courses.

Functional Responsibilities: Develops and revises these courses and prepares appropriate training catalogs. Prepares instructor materials (course outline, background material, and training aids). Prepares student materials (course manuals, workbooks, handouts, completion certificates, and course critique forms). Trains personnel by conducting formal classroom courses, workshops, and seminars. Performs additional duties as assigned.

Minimum Education: Bachelor's Degree from an accredited university in a technical discipline or equivalent¹

35. Analyst II

Minimum/General Experience: Must have five year experience in logistic training. Conducts the research necessary to develop and revise training courses.

Functional Responsibilities: The Trainer II plans for, organizes, and conducts training. Prepares training materials in a variety of media for customer and own use. Maintains records of training activities and monitors effectiveness of programs. May analyze training requirements for specific projects. Formulates and develops plans, procedures, and programs to meet specific training needs and problems. Develops and compiles training manuals and other training aids, and obtains equipment, training films, and other visual aids.

Minimum Education: Bachelor's degree and 4 years experience; however, 4 years training experience may be substituted for degree.

36. Analyst I

Minimum/General Experience: Must have one year experience in training experience.

Functional Responsibilities: The Trainer I plans for, organizes, and conducts training. Prepares training materials in a variety of media for customer and own use. Maintains records of training activities and monitors effectiveness of programs.

Minimum Education: Bachelor's degree.

37. Administrative Specialist – III

Minimum/General Experience: Must have a minimum of ten (10) year experience in a technical environment and a wide range of office/program management support capabilities including word processing, data management support, spreadsheet, etc. Must have good oral and written communication skills as well as office management skills.

Functional Responsibilities: Assists management in all business, cost containment, and accounting activities. Assists management in office administration, contract administration and facility operation activities. Responsible for providing cost control advice to managers. Responsibilities may also include typing, word processing, key entry, and similar activities.

Minimum Education: High school diploma or equivalent.

38. Administrative Specialist - II

Minimum/General Experience: Must have a minimum of five (5) year experience in a technical environment and a wide range of office/program management support capabilities including word processing, data management support, spreadsheet, etc. Must have good oral and written communication skills as well as office management skills.

Functional Responsibilities: Assists management in all business, cost containment, and accounting activities. Assists management in office administration, contract administration and facility operation activities. Responsible for providing cost control advice to managers. Responsibilities may also include typing, word processing, key entry, and similar activities.

Minimum Education: High school diploma or equivalent.

39. Administrative Specialist – I/Clerk

Minimum/General Experience: Must have a minimum of one (1) year experience in a technical environment and a wide range of office/program management support capabilities including word processing, data management support, spreadsheet, etc. Must have good oral and written communication skills as well as office management skills.

Functional Responsibilities: Assists management in all business, cost containment, and accounting activities. Assists management in office administration, contract administration and facility operation activities. Responsible for providing cost control advice to managers. Responsibilities may also include typing, word processing, key entry, and similar activities.

Minimum Education: High school diploma or equivalent.

¹. For the purposes of meeting the government's requirements, directly related college-level study may be substituted for experience at the rate of one academic years of study for nine months of experience, up to a maximum four years of study. Directly related, progressively more responsive, computer experience may be substituted for undergraduate and graduate degrees at the rate of nine months of experience for one academic year of study. A programming certificate from a technical or vocation school is equivalent to two years of undergraduate study. An AA/AS degree at an accredited college or university can be substituted for 18 months of experience.