Appendix J

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS YOUTH APPRENTICESHIP

REQUIRED SKILLS CURRICULUM
UNITS 1-2

Unit 1: Required Skills
Core Skills

Competency
1. Apply academic knowledge

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Read and comprehend work related materials
>> Apply mathematical operations involving whole numbers, fractions, decimals, percentages, formulas and methods of measurement accurately when necessary
>> Interpret charts, tables, and graphs

Learning Objectives
 MATH
   Add, subtract, multiply, and divide whole numbers, fractions, decimals and percents
   Calculate averages, ratios, proportions, and rates
   Convert decimals to fractions, fractions to percents and vice versa
   Measure and accurately report measurements of time, temperature, length, width, height, width, perimeter, area, volume, and weight
   Use appropriate formulas
   Convert measurements correctly (e.g., English (standard) to metric)
   Interpret meaning from data
 ENGLISH
   Use standard English to compile information and prepare written reports
   Apply English language correctly (spelling, grammar, structure)
   Derive meaning from text through summarizing
   Discern meaning from written word
   Use acceptable language
   Write legibly
 SCIENCE
   Explain the key elements of the scientific process
   Define the differences in qualitative and quantitative measurements
   Compare and contrast subjective and objective information
   Discriminate between fact and opinion

Comments:

Unit 1: Required Skills
Core Skills

Competency
2. Apply career knowledge

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Demonstrate understanding of career development in the Arts, A/V Technology and Communications industry
>>
>> Obtain necessary skills and knowledge to meet position requirements

Learning Objectives
> Explain the process for seeking employment
>
> Describe the major functions and duties of the career pathways within the Arts, A/V Technology and Communications career cluster
>
> Discuss educational, training, and credentialing requirements for a selected job
>
> Research job requirements and characteristics of a selected job
>
> Contrast "positive" and "less positive" aspects of a selected job
>
> Describe opportunities for advanced training in Arts, A/V Technology and Communications careers

Comments:

Unit 1: Required Skills
Core Skills

Competency
3. Apply Arts, A/V Technology and Communications industry knowledge

Performance Standard Condition
> **Competence will be demonstrated**
> > at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
> > Demonstrate Arts, A/V Technology and Communications industry systems understanding based on *current knowledge and training*

Learning Objectives
 SYSTEMS, PRINCIPLES, CONCEPTS
   Characterize the three phases of print production: pre-press, press, post-press
   Compare and contrast the workflows of the major printing processes
   Discuss common vocabulary terms used in the printing industry
   Identify and describe the major printing processes: flexography, gravure, offset/lithography, screen printing, and digital
   List the advantages and disadvantages of each major printing process
   List typical products produced by each major process
   Identify and describe basic production equipment used in a commercial printing plant such as: computer workstation; proofing device; plate-setter; scanner; offset press; digital press; paper cutter; paper folder; saddle stitcher; perfect binder; paper padder; and paper drill
 HISTORY and TRENDS
   Describe a brief history of A/V communications and governmental communications legislation
   Examine the history, current state and future forecast of the printing industry
   List major milestones in the printing industry
   Describe the impact of technology on the printing industry
   Explain and analyze the quality approval process used in the printing industry

Comments:

Unit 1: Required Skills
Core Skills

Competency
4. Communicate effectively

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Deliver coherent verbal messages in words that can be understood
>> Use appropriate and bias-free language
>> Use appropriate body language
>> Listen actively to others
>> Demonstrate courtesy with self-introduction
>> Respond to inquiries or statements within the scope of current responsibilities and understanding
>> Does not provide confidential information without appropriate authorization
>> Does not overreact in response to anger
>> Record information in a timely manner
>> Record written information legibly and accurately
>> Organize and compile messages, technical information, and summaries accurately
>> Use email, the Internet, printer, copier, scanner, and fax machine equipment appropriately as applicable
>> Is sensitive to special, multicultural, and/or multilingual needs

Learning Objectives
 GENERAL
   Compare verbal and nonverbal behaviors
   Explain how empathy and bias can be communicated verbally and non-verbally
 LISTEN
   Discuss effective and active listening skills
   Differentiate between hearing and listening
 WRITTEN
   Discern meaning from written instructions
   Write clearly to communicate written ideas
   Discuss common recording errors and how to avoid them
 CUSTOMER
   Identify internal and external customers at your facility
   Discuss steps to assess customer understanding
   Describe the steps to follow when dealing with complaints
 TOOLS
   Describe technology used in communicating such as, telephone, texting, instant messaging (IM), computers, fax, intercom, beepers, etc.
   Explain the proper use and etiquette required for these forms of communication technology

Review the policies and procedures for using written communication tools in your company such as email, Internet, printer, copier, scanner, and/or fax

Comments:

Unit 1: Required Skills
Core Skills

Competency
5. Act professionally

Performance Standard Condition
> **Competence will be demonstrated**
>   at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>   Follow oral and written instructions
>   Is pleasant, courteous, and professional with coworkers and internal and external customers
>   Appearance and dress are appropriate according to the requirements of the employer
>   Takes personal responsibility for attendance
>   Is punctual
>   Begin work promptly
>   Organize and prioritizes tasks efficiently
>   Exhibit positive attitude and commitment to task at hand
>   Complete assigned tasks accurately and in a timely manner
>   Take responsibility for actions and decisions
>   Recognize lack of knowledge and seeks help from information sources
>   Evaluate work goals periodically with worksite professional
>   Accept constructive criticism and applies suggestions
>   Communicate safety, training, and job-specific needs
>   Adhere to safety rules and regulations

Learning Objectives
> Locate and explain written organizational policies, rules and procedures to help employees perform their jobs
> Locate and explain your company's employee manual for policies on Appearance, Breaks, Time Off, Cell Phone Use, Weather, Personal Issues, etc.
> List qualities of successful Arts, A/V Technology and Communications employees
> Describe how you can demonstrate enthusiasm and commitment at the worksite
> Define initiative
> Explain ways that you can show initiative at a worksite
> Explain methods to evaluate work assignments and prioritize them
> Describe how to effectively receive feedback

Comments:

Unit 1: Required Skills
Core Skills

Competency
6. Demonstrate customer service skills

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Is knowledgeable about products and services
>> Address the customer, either in person, by telephone, e-mail or other means
>> Gather information about customer's needs, and customer's knowledge of products or services
>> Respond to customer's comments and questions
>> Solicit supervisor or co-worker support and advice when necessary to meet customer needs
>> Coordinate as needed with other services to expedite delivery of service or product
>> Handle complaints tactfully without insult or conflict

Learning Objectives
> Define customer service
> Identify internal and external customers at your facility
> Describe how customer service affects a company's "bottom line"
> Describe standards of service
> List strategies for maximizing customer satisfaction
> Describe the functions of other departments or units to serve the customer
> Describe the steps to follow when dealing with complaints
> Identify customer service methods to use when encountering an angry customer
> Review material pertaining to products and services produced by your department or company

Comments:

Unit 1: Required Skills
Core Skills

Competency
7. Cooperate with others in a team setting

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Demonstrate respect relating to people
>> Contribute to a group with ideas, suggestions, and effort
>> Listen and respond appropriately to team member contributions
>> Work collaboratively with people from other backgrounds/cultures
>> Resolve differences for the benefit of the team
>> Complete their share of tasks necessary to complete a project

Learning Objectives
> Explain the functions of each department or unit within the larger organization
> Identify roles found in teams such as leader, facilitator, recorder, etc.
> List effective meeting management skills
> Demonstrate techniques that show respect for others
> Describe how to effectively give and receive feedback
> Describe conflict resolution methods
> Discuss ways to participate within a team setting
> Explain how to interact appropriately with diverse ethnic, age, cultural, religious, and economic groups in different situations
> Describe how work teams coordinate work flow and help manage resources

Comments:

Unit 1: Required Skills
Core Skills

Competency
8. Think critically

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Recognize the existence of a problem
>> Apply problem-solving steps
>> Differentiate between fact and opinion
>> Consider other viewpoints and perspectives
>> Apply the principles and strategies of organized thinking
>> Evaluate information, ideas, and problems
>> Collect information through probing questions and research
>> Define the problem
>> Use techniques such as brainstorming to acquire alternative solutions
>> Demonstrate comparison skills
>> Make decisions based on analysis
>> Present ideas for critical evaluation
>> Support viewpoints with evidence

Learning Objectives
> Describe how to break a problem down in order to brainstorm, evaluate, and analyze possible solutions
> Discuss the difference between fact and opinion
> Discuss data collection techniques for the problem solving process
> Describe how to present a solution with evidence
> Explain ways to reach a decision by consensus
> Discuss methods to evaluate a solution that has been implemented

Comments:

Unit 1: Required Skills
Core Skills

Competency
9. Exhibit regulatory and ethical responsibilities

Performance Standard Condition
Competence will be demonstrated
at the worksite and classroom

Performance Standard Criteria
Performance will be successful when learners:
Follow all safety and worksite standards and regulations
Perform legally and ethically by all local, state, and national standards
Use email, the Internet, printer, copier, scanner, and fax machine equipment appropriately and correctly as applicable
Operate within scope of authority adhering to company rules, regulations, and policies as established in employee handbook/procedures
Comply with legal requirements for documentation
Document work processes as required
Record and file appropriate documents in timely manner
Maintain confidentiality of company, customer, and co-worker information
Document reportable incidents to worksite professional immediately, if applicable
Receive, handle, package, and ship materials and product according to shipping laws and regulations if applicable

Learning Objectives
GENERAL
Explain the role of the government in regulating and managing the Arts, A/V Technology and Communications industry
Compare national, state and local regulators that oversee the Arts, A/V Technology and Communications industry: Federal Communications Commission (FCC), Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), etc. as applicable
Identify the major printing industry associations: National Association for Printing Leadership (NAPL); Printing Industries of America (PIA); Flexographic Technical Association (FTA); Specialty Graphic Imaging Association (SGIA); and, AIGA, the professional association for design
Identify the management structure and employees' roles within your organization
Explain legal issues faced by Arts, A/V Technology and Communications professionals
Compare counterfeiting, copyright, and trademark laws
Explain the concept of intellectual property
Describe the function of a non-disclosure agreement (NDA)
Explain how copy write and trademark law applies legally and ethically to the use of other source code and web page design
Define the purpose and function of WAI (Web Accessibility Initiative) guidelines

ETHICAL
  Explain the difference between an ethical practice and a legal responsibility
  Identify current ethical issues common to the Arts, A/V Technology and Communications field
  Describe ethical work values such as confidentiality, productivity during the day, following safety standards
SAFETY
  Define legal and ethical responsibilities for safety procedures
  Describe the certification/license requirements to operate specific equipment or perform specific functions
RECORDS
  Identify the main functions of documents and documentation
  Identify the guidelines for retaining common documents

Comments:

Unit 1: Required Skills
Core Skills

Competency
10. Use resources wisely

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Follow the facility pollution/waste prevention plan
>> Recycle whenever possible
>> Dispose of materials appropriately
>> Dispose of hazards legally and with regard to environmental impact

Learning Objectives
> Identify current environmental issues affecting the Arts, A/V Technology and Communications industry
> Define what is meant by making "green" choices
> Compare renewable and nonrenewable natural resources
> Explain the meaning of sustainable resources use
> Identify practices that contribute to sustainability
> Describe why wise use of resources at the worksite is important
> Give examples of wasteful uses of resources (unnecessary waste and duplication) at the worksite
> List materials that can be recycled
> Describe materials that require special disposal
> Explain purpose of pollution control systems
> Relate power generation to energy sources
> Compare environmental impact of energy sources (e.g., fuel cells, chemical, wind, hydro, nuclear, electric, mechanical, solar, biological)

Comments:

Unit 1: Required Skills
Core Skills

Competency
11. Use basic technology

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Use communication technology (such as pagers, radios, phone, fax, email, Internet) to access and distribute data and other information within the scope of the job
>> Follow rules for proper computer and communication technology usage
>> Use calculating tools such as a computer, calculator, and adding machine correctly
>> Enter, edit, and store data on computerized equipment according to worksite guidelines
>> Verify data entry prior to data storage or equipment operation

Learning Objectives
> Identify the parts and functions of a computer system using correct terminology including the keyboard, monitor, mouse, printer
> Point out the storage device locations on the computer such as the Hard drive, Floppy drive, CD-ROM drive, and Portable File Storage drive, etc
> Show the appropriate connections and positioning of peripheral devices such as a mouse, keyboard, monitor, portable devices, and printer
> Discuss the importance of backing up computerized files
> Compare different forms of communications technology including email, texting, word processing, spreadsheets, database, presentation software, and use of the internet to communicate, search and display information
> Describe how to evaluate internet websites and information for validity and reliability
> Explain appropriate and inappropriate uses of email and internet while at work
> Describe how to develop effective presentations using appropriate technologies (e.g., tables, charts, and visual graphics)
> Explain the use of writing/publishing/presentation applications

Comments:

Unit 2: Required Skills
Safety and Security

Competency
1. Follow personal safety requirements

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Participate in all required safety training
>> Follow all worksite guidelines for personal safety
>> Apply principles of proper body mechanics when necessary
>> Report any exposures, injuries, or accidents, personal or to others, immediately, if applicable
>> Locate and can find key information on Material Safety Data Sheets (MSDS)
>> Handle and dispose of any hazardous materials appropriately, if applicable
>> Operate only equipment that he/she is trained on
>> Adhere to equipment safety standards
>> Visually inspect equipment to ensure safety compliance and function before operation
>> Wear the required Personal Protective Equipment (PPE) at all times as required by the worksite for specific tasks

Learning Objectives
> Discuss the regulatory purpose and responsibility of the Occupational Safety and Health Administration (OSHA)
> List your rights as a worker according to OSHA
> Explain the procedure to follow in case of an exposure, injury, or accident to self or to another
> Explain ways your company prevents accidents
> List engineering controls that are taken to protect workers from accidents
> Describe safe and unsafe work habits and their implications
> List safety hazards at your facility
> Explain potential hazards associated with blood borne pathogens
> Explain the ergonomic impact of work techniques
> Describe proper techniques for lifting loads
> Describe the Material Safety Data Sheet (MSDS) and its purpose
> Discuss the procedures of handling and disposing of hazardous material
> List mechanical, chemical, electrical, compressed air, and equipment safety hazards at your facility
> Explain how Lock Out/Tag Out procedures prevent accidents
> Define the Personal Protective Equipment (PPE) required for specific tasks in your facility
> Explain the use of safety equipment such as eyeball washers and chemical safety showers and when you would use them
> Describe ways to prevent burns

Comments:

Unit 2: Required Skills
Safety and Security

Competency
2. Maintain a safe work environment

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Comply with posted safety warnings and symbols
>> Identify unsafe conditions and/or work habits and reports them to the worksite professional immediately, if applicable
>> Help maintain a clean and safe working environment free of debris and obstacles
>> Clean, organize, put away items in the work area
>> Safely identify, handle, store, and use hazardous materials according to company procedure, if applicable
>> Report any indications of insects or pests

Learning Objectives
> List the major components of a facility safety program
> List the different state and federal agencies that provide regulatory oversight at your facility for personal safety, environmental safety, and equipment safety
> List accident and fire prevention techniques
> Describe posted safety warnings and symbols and what they mean
> Describe safe and unsafe work habits and their implications
> Discuss the importance of keeping the work area and tools/equipment clean
> List mechanical, electrical, and equipment safety hazards at your facility
> Discuss how to identify and report unsafe conditions in your facility
> Discuss safety procedures to prevent accidents
> Describe the requirements at your facility for safety training and auditing
> Assess need for good housekeeping practices
> List accident and fire prevention techniques
> List hazards that contribute to injury due to slips, trips, or falls
> Outline compliance requirements of sanitation and health inspections

Comments:

Unit 2: Required Skills
Safety and Security

Competency
3. Demonstrate professional role to be used in an emergency

Performance Standard Condition
    Competence will be demonstrated
      at the worksite and classroom

Performance Standard Criteria
    Performance will be successful when learners:
      Participate in emergency safety simulations and drills
      Outline the company's policy and procedure for worksite incidents, accidents, electrical,
      fire, tornado, bomb threats, robbery, hostage situations, and other emergency situations
      Identify the closest fire alarms and emergency exits in the assigned worksite area
      Identify the fire extinguishers in the assigned worksite area
      Identify appropriate alarms and procedures for using alarms
      Contact emergency personnel according to company requirements in the event of an
      emergency
      Document any emergency incidents according to company requirements

Learning Objectives
    Describe the procedures in your company to report an emergency
    Review your company procedures for responding to exposures, injuries, accidents, spills,
    fire, tornado, bomb threat, robbery, hostage situations, etc.
    Demonstrate how to use the fire blanket and/or fire extinguisher
    Explain the evacuation plan for the worksite
    Indicate the demeanor necessary during an emergency
    Identify methods to cope with emergency situations
    Name the resources for assistance in crimes or accidents
    Locate and explain use of first aid emergency care kits
    Detail steps to use in medical emergencies requiring First Aid, CPR, and/or Heimlich
    maneuver
    Locate and explain use of spill kits, if applicable to worksite
    Explain who in your facility can give first aid care in the event of an emergency
    Explain the local protocols in place with local law enforcement
    Explain the role of the Hazardous Materials (HAZMAT) team
    Detail how to access help in a robbery or terrorist situation
    Explain the use of safety equipment such as eyeball washers and chemical safety showers
    and when you would use them

Comments:

Unit 2: Required Skills
Safety and Security

Competency
4. Follow security procedures

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Maintain customer and employee security procedures
>> Observe surroundings to identify dangerous situations
>> Secure and store lost and found items as required
>> Recognize and report suspicious situations if applicable
>> Comply with all required employee testing of facility such as fingerprinting or drug testing

Learning Objectives
> Describe the need for security within printing companies and the products they produce
> Identify sources of security risk
> Describe your facilities security system of surveillance cameras, personnel, lighting
> Outline how access to specific areas is controlled
> Outline how locking systems and security control measures protect customers and employees
> Define basic security measures for records and files
> Describe procedures for controlling lost and found items
> Discuss the purpose and ethics of employee fingerprinting and drug testing in the Arts, A/V Technology and Communications industry

Comments:

Unit 2: Required Skills
Safety and Security

Competency
5. Maintain confidentiality

Performance Standard Condition
> **Competence will be demonstrated**
>> at the worksite and classroom

Performance Standard Criteria
> **Performance will be successful when learners:**
>> Do not provide confidential information without appropriate authorization
>> Safeguard the confidentiality of customer records and project information per requirements
>> Comply with legal requirements for confidentiality

Learning Objectives
> Discuss legal regulations pertaining to privacy and security such as the USA Patriot Act
> Identify penalties for regulation non-compliance
> Explain ways to ensure project confidentiality
> List the legal requirements for release of customer and project information
> Evaluate technological threats to confidentiality
> Describe the disposal policy of confidential information

Comments: