This document, which is intended as a guide for work force preparation program providers, details the Illinois occupational skill standards for programs preparing students for employment in occupations in the finishing and distribution cluster. The document begins with a brief overview of the Illinois perspective on occupational skill standards and credentialing, the process used to develop the skill standards, and assumptions underlying the standards. Presented next are skill standards for 14 tasks typically performed by workers involved in finishing and distribution. Each skill standard statement contains the following components: (1) the actual skill standard (including the conditions of performance, work to be performed, and performance criteria); (2) performance elements and assessment criteria; and (3) a recommended assessment and credentialing approach. The following are among the tasks for which skill standards are provided: (1) perform binding operations (cutting, folder setup, trimming, stitching); (2) perform specialty operations (embossing, foil stamping, die-cutting); and (3) perform mailing, distribution, and ink...
jet printing operations. The following items are appended: glossary; lists of Illinois Occupational Skill Standards and Credentialing Council, Communications/Information Technology Subcouncil, and Finishing and Distribution Cluster Standards Development Committee members; Communications/Information Technology Subcouncil Finishing and Distribution Cluster skill standards recognition proposal; and list of necessary workplace skills. (MN)
ILLINOIS

OCCUPATIONAL SKILL STANDARDS

FINISHING AND DISTRIBUTION CLUSTER

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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ILLINOIS OCCUPATIONAL SKILL STANDARDS

FINISHING AND DISTRIBUTION CLUSTER

Endorsed for Illinois by the Illinois Occupational Skill Standards and Credentialing Council
MESSAGE TO ILLINOIS CITIZENS

Dear Citizens of Illinois:

Preparing youth and adults to enter the workforce and to be able to contribute to society throughout their lives is critical to the economy of Illinois. Public and private interest in establishing national and state systems of industry-driven skill standards and credentials is growing in the United States, especially for occupations that require less than a four-year college degree. This interest stems from the understanding that the United States will increasingly compete internationally and the need to increase the skills and productivity of the front-line workforce. The major purpose of skill standards is to promote education and training investment and ensure that this education and training enables students and workers to meet industry standards that are benchmarked to our major international competitors.

The Illinois Occupational Skill Standards and Credentialing Council (IOSSCC) has been working with industry subcouncils, the Illinois State Board of Education and other partnering agencies to adopt, adapt and/or develop skill standards for high-demand occupations. Skill standards products are being developed for a myriad of industries, occupational clusters and occupations. This document represents the collaborative effort of the Communications/Information Technology Subcouncil, and the Finishing and Distribution Cluster Standards Development Committee.

These skill standards will serve as a guide to workforce preparation program providers in defining content for their programs and to employers to establish the skills and standards necessary for job acquisition. These standards will also serve as a mechanism for communication among education, business, industry and labor.

We encourage you to review these standards and share your comments. This effort has involved a great many people from business, industry and labor. Comments regarding their usefulness in curriculum and assessment design, as well as your needs for in-service and technical assistance in their implementation are critical to our efforts to move forward and improve the documents.

Questions concerning this document may be directed to:

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We look forward to your comments.

Sincerely,

The Members of the IOSSCC
The Illinois Occupational Skill Standards and Credentialing Council (IOSSCC) endorses occupational skill standards and credentialing systems for occupations that (a) require basic workplace skills and technical training, (b) provide a large number of jobs with either moderate or high earnings, and (c) provide career advancement opportunities to related occupations with moderate or high earnings. The nine-member Council was established by the Occupational Skill Standards Act (PA 87-1210). The Council, representing business, industry and labor and working with the Illinois State Board of Education in partnership with the Illinois Community College Board, Illinois Board of Higher Education, Illinois Department of Employment Security and Illinois Department of Commerce and Community Affairs, has created a common vision for workforce development in Illinois.

Vision

It is the vision of the IOSSCC to develop a statewide system of industry-defined and recognized skill standards and credentials for all major skilled occupations providing strong employment and earnings opportunities in Illinois. Information related to occupational employment and earning opportunities is determined by the Illinois Occupational Information Coordinating Committee (IOICC) in cooperation with business and industry.

Subcouncils and Standards Development Committees

Under the direction of the Council, and in cooperation with organizations such as the Illinois Chamber of Commerce, the Illinois AFL-CIO, the Illinois Manufacturers' Association, and others, Industry Subcouncils have been formed to review, approve and promote occupational skill standards and credentialing systems. The Industry Subcouncils are Agriculture and Natural Resources; Applied Science and Engineering*; Business and Administrative Information Services; Communications/Information Technology; Construction*; Education and Training Services*; Energy and Utilities*; Financial Services; Health and Social Services; Hospitality; Legal and Protective Services*; Manufacturing; Marketing and Retail Trade; and Transportation, Distribution and Logistics. (*Subcouncils currently being formed.)

The Standards Development Committees, composed of business, labor and education representatives, are experts in the related occupational cluster and work with the product developer to
- Develop or validate occupational skill standards;
- Identify related academic skills;
- Develop or review assessment or credentialing approaches; and
- Recommend endorsement of the standards and credentialing system to the industry subcouncil.

Expected Benefits for Employers, Educators, Students and Workers

Occupational skill standards and credentialing systems are being developed and promoted by the IOSSCC to improve Illinois' competitiveness. Such standards and credentialing systems provide a common language for employers, workers, students and education and training providers to communicate skill requirements and quality expectations for all major industry and occupational areas.

For Employers, skill standards will
- Improve employee recruitment and retention by more clearly identifying skill requirements;
- Encourage improved responsiveness and performance of education and training providers;
- Enlarge the pool of skilled workers; and
- Focus attention on the importance of training investment.
For Education and Training Providers, skill standards will
- Provide information on all major industries and occupations;
- Contribute to program and curriculum development;
- Strengthen relationships between educators and training providers; and
- Improve career planning.

For Students and Workers, skill standards will
- Foster better decision making concerning careers and the training necessary to acquire well-paying jobs;
- Allow more effective communication with employers about what they know and can do; and
- Allow more effective work with employers in career development and skill upgrading.

IOSSCC Requirements for Occupational Skill Standards

Any occupational skill standards and credentialing system seeking IOSSCC endorsement must
- Represent an occupation or occupational cluster that meets the criteria for IOSSCC endorsement;
- Address both content and performance standards for critical work functions and activities for an occupation or occupational area;
- Ensure formal validation and endorsement by a representative group of employers and workers within an industry;
- Provide for review, modification and revalidation by an industry group a minimum of once every five years;
- Award credentials based on assessment approaches that are supported and endorsed by the industry and consistent with nationally recognized guidelines for validity and reliability;
- Provide widespread access and information to the general public in Illinois; and
- Include marketing and promotion by the industry in cooperation with the partner state agencies.

Definitions and Endorsement Criteria

The definitions and endorsement criteria are designed to promote the integration of existing and future industry-recognized standards, as well as the integration of the Illinois academic and occupational skill standards. Because all skill standards must address the critical work functions and activities for an occupation or industry/occupational area, the Council further defined three major components:

- **Conditions of Performance**: The information, tools, equipment and other resources provided to a person for work performance.
- **Statement of Work**: A description of the work to be performed by a person.
- **Performance Criteria**: The criteria used to determine the required level of performance. These criteria could include product characteristics (e.g., accuracy levels, appearance), process or procedural requirements (e.g., safety, standard professional procedures) and time and resource requirements.

The IOSSCC is currently working with the Illinois State Board of Education and other state agencies to integrate the occupational standards with the Illinois Learning Standards which describe what students should know and be able to do as a result of their education. The Council is also working to integrate workplace skills—problem solving, critical thinking, teamwork, etc.—with both the Learning Standards and the Occupational Skill Standards.
The Illinois Model

Illinois Occupational Skill Standards describe what people should know and be able to do and how well these skills and knowledge will be demonstrated in an occupational setting. They focus on the most critical work performances for an occupation or occupational area. As seen in the following model, Illinois Occupational Skill Standards contain at least these areas:

- Performance Area
- Performance Skill
- Skill Standard
- Performance Elements
- Performance Assessment Criteria

Illinois Occupational Skill Standards also carry a coding at the top of each page identifying the state, fiscal year in which standards were endorsed, subcouncil abbreviation, cluster abbreviation and standard number. For example, the twenty-fifth skill standard in the Finishing and Distribution Cluster, which has been developed by the Communication/Information Technology Subcouncil, would carry the following coding: IL.00.C/IT.FDC.25.

A model for Illinois Occupational Skill Standards showing the placement of the coding and providing a description of each area within a standard is contained on the following page.
SUMMARY OF WORK TO BE PERFORMED. SUMMARY IS BRIEF AND BEGINS WITH AN ACTION VERB.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

A comprehensive listing of the information, tools, equipment and other resources provided to the person(s) performing the work.

WORK TO BE PERFORMED

An overview of the work to be performed in demonstrating the performance skill standard. This overview should address the major components of the performance. The detailed elements or steps of the performance are listed under "Performance Elements."

PERFORMANCE CRITERIA

The assessment criteria used to evaluate whether the performance meets the standard. Performance criteria specify product/outcome characteristics (e.g., accuracy levels, appearance, results, etc.) and process or procedure requirements (e.g., safety requirements, time requirements, etc.).

PERFORMANCE ELEMENTS

Description of the major elements or steps of the overall performance and any special assessment criteria associated with each element.

PERFORMANCE ASSESSMENT CRITERIA

Listing of required testing, certification and/or licensing.

Product and process used to evaluate the performance of the standard.

PRODUCT

Description of the product resulting from the performance of the skill standard.

PROCESS

Listing of steps from the Performance Elements which must be performed or the required order or performance for meeting the standard.
After reviewing the current labor market information, the Communications/Information Technology Subcouncil recommended the development of skill standards for Graphic Communication Technologists. The identified career clusters in Graphic Communication Technology meet the criteria established by the Illinois Occupational Skill Standards Credentialing Council (IOSSCC) for performance skill standard development, education and training requirements, employment opportunities, earnings potential and/or career opportunities. A product developer knowledgeable with graphic communication occupations began the process of performance skill identification. The product developer prepared an outline and framework designed to address the major skills expected in the workplace. The framework addresses skill requirements common to imaging, press, and finishing/distribution units in the printing industry.

Job descriptions from the printing industry and lists of competencies addressed in related educational programs were solicited and received. National Printing Skill & Knowledge Standards Project standards for printing technologists were consulted. Common and accepted references provided reinforcement for the direction given in the framework. Those references included current texts used by educational institutions and the National Printing Skill & Knowledge Standards Project.

A Standards Development Committee composed of workers from the graphic communication field was convened. The framework, initial outline, matrix and draft skill standards were presented to the Standards Development Committee for review, revisions, adjustments and validation in this first meeting. Performance elements were developed using national standards as references. Additional skill standards were developed in accordance with the direction established by the IOSSCC and presented to the Standards Development Committee for review and revision at a second meeting. Graphic Communication educators joined the Standards Development Committee at a third meeting to review consistency in terminology and the assessment criteria. The performance assessment criteria includes a product statement that indicates the outcome or end result of performing the skill and a process statement that identifies the steps of performance that are critical to the outcome and/or a specific sequence that must be followed.

A complete set of skill standards statements was provided to the Subcouncil. At the recommendation of the Subcouncil, copies of the performance skill standards were distributed for further review by selected educators. The Subcouncil also reviewed the materials in depth. Comments submitted by members of the Subcouncil and those requested from outside reviewers have been integrated into the final product. A statement of assumptions accompanies this document to provide context for the standards document.

The Subcouncil recommended that the final skill standards product be presented to the IOSSCC. The Council reviewed the skill standards and met with the product developer, state liaison, chair of the Subcouncil and other business and industry leaders. Based on the review, the IOSSCC voted to endorse the Finishing and Distribution Cluster skill standards.
ASSUMPTIONS FOR FINISHING AND DISTRIBUTION CLUSTER STANDARDS

Skill standards statements assume:

1. Workplace skills (employability skills) are expected of all individuals. Socialization skills needed for work are related to lifelong career experience and are not solely a part of the initial schooling process. These are not included with this set of statements.

2. Specific policies and procedures of the work site will be made known to the individual and will be followed.

3. Time elements outlined for the skill standards result from the experience and consideration of the panel of experts who made up the Standards Development Committee.

4. Skills will progress from simple to complex. Once a skill has been successfully performed, it will be incorporated into more complex skills.

5. Skill standards describe the skill only and do not detail the background knowledge or theory related to the particular skill base. Although the skill standard enumerates steps to successful demonstration, rote approaches to the outcomes are not prescribed.

6. Skill standards include general performance information related to the performance of the skill. Printing companies maintain their own policies and procedures that must be followed.

7. Skill standards do not replace, supersede or substitute for procedure manuals.

8. Facilities are designed to meet safety requirements.

9. Local, state, Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) laws and standards are followed.

10. Personal protective equipment (PPE) is worn at all times in restricted areas.
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PERFORM CUTTING OPERATIONS.

BNDING OPERATIONS

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Stock paper
- Paper cutter and related equipment
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Operate paper cutter to cut sheets of paper to meet job specifications.

PERFORMANCE CRITERIA

The press sheets are square and match the correct size as specified on the job ticket.

Time required to complete the skill will vary with the job specifications.

(Example: 23-by-35-inch sheets are chop cut producing 8 pages of 8½-by-11-inch letter size paper. Using a programmable cutter, a quantity of 5,000 sheets are cut in 20 minutes; special cuts require additional time.)

PERFORMANCE ELEMENTS

1. Prepare cutting setup by determining side guide, gripper and gear side and adjusting proper clamp pressure.
2. Set up guillotine cutter, including manual, automated, and computer-assisted positioning by performing necessary calculations.
3. Make test cut to determine if blade is sharp, not damaged and ready for cutting stock listed on job ticket.
4. Ensure cut quality by checking squareness, ink set-off, clamp pressure and blade travel.
5. Jog, load and follow appropriate stockpiling procedures for paper cutter.
6. Cut stock to specifications.
7. Verify finished product for adherence to job ticket specifications.

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The cut sheets or pieces match the job specifications.

PROCESS

All performance elements for performing cutting operations are critical and must be performed in sequence.
SET UP AND OPERATE FOLDER.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Printed product
- Folding equipment
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Set up and operate folder to produce a product to match job specifications.

PERFORMANCE CRITERIA

The folding equipment is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: An 11-by-17-inch sheet of paper is folded once on the long dimension to produce a 4-pager. A quantity of 5,000 sheets are folded in 40 minutes.)

PERFORMANCE ELEMENTS

1. Set up different types of feeders and delivery systems, including continuous, pile, stream, friction, and gravity feeders.
2. Set up and adjust the following:
   a. Feed rollers and wheels
   b. Fold rollers
   c. Fold gate and deflectors
   d. Special attachments
   e. Delivery table
3. Set up ancillary operations on folding machine.
   a. Perforating
   b. Creasing
   c. Slitting
   d. Scoring
   e. Gluing
   f. Batch counting
   g. Bundling
4. Check and adjust product quality to meet job specifications.
5. Troubleshoot folding machine operation to ensure high quality by adjusting deflector position, reducing or equalizing roller pressure, and adjusting side guide and plate.
6. Operate folder to meet job specifications.
PERFORMANCE ASSESSMENT CRITERIA

**PRODUCT**

The folded product meets the job specifications.

**PROCESS**

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Signatures to be perfect bound
- Collating/gathering equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Collate/gather signatures to produce a product to match job specifications.

PERFORMANCE CRITERIA

The adhesive binding machine is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: Utilizing a 6-pocket collating/gathering machine 5,000 sets of 16-page 8½-by-11-inch signatures are set up, run and completed in 3 hours; time is for gathering only.)

PERFORMANCE ELEMENTS

1. Apply appropriate procedures for machine collating/gathering of signatures.
2. Determine placement and sequence of signatures to be collated based on job specifications.
4. Set up and operate gathering machine (e.g., rotary, swing-arm, and Z-U disk types, etc.).
5. Identify common problems associated with assembling signatures, their causes, and make adjustments as needed, to meet job specifications (e.g., creeping, shingling, etc.).

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The collated/gathered product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Collated/gathered signatures
- Adhesive binding equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Prepare backbone of collated/gathered signatures for gluing to produce a product to match job specifications.

PERFORMANCE CRITERIA

The adhesive binding equipment is set up and operated in a safe manner.

Time required to complete the skill will vary the job specifications.

(Example: The backbone equipment is set up and operated to prepare and run a quantity of 5,000 - 96 page 8½-by-11-inch books in 1½ hours.)

PERFORMANCE ELEMENTS

1. Make ready and operate backbone cutter.
2. Make ready and adjust milling station including backup disks, leveling shelf, cutter, rougher, and notcher.
3. Take measures to correct or prevent draw.
   a. Adjust or replace knives or notchers.
   b. Remove dust and paper from grinding process.
   c. Change dust bag to ensure operation of central vacuum system.

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The backbone operation of the adhesive bindery equipment is set up and operated so that the product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PREPARE AND PERFORM GLUING AND COVER APPLICATION (ADHESIVE BINDING).

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Books prepared for gluing
- Perfect binding machine with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Prepare gluing station and cover breaker to produce a product to match job specifications.

PERFORMANCE CRITERIA

The adhesive binding equipment is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: The gluing and cover break equipment are set up and operated to run a quantity of 5,000 - 96 page 8½-by-11-inch books in 1½ hours.)

PERFORMANCE ELEMENTS

1. Set up and operate gluing station.
2. Select appropriate glues properties (e.g., hot melt, polyvinyl acetate, and polyurethane reactive glues) for perfect binding based on their.
3. Operate cover feeder (e.g., set side guides, set double-sheet detector, set scorer, etc.).
4. Ensure wheel pressure and suction on cover feeder are adequate to ensure single-sheet flow, square scoring and hinging.
5. Perform quality control by pulling pages from book to test that first, middle, and last pages of book satisfy shop standards.
6. Set up and operate cover breaker by adjusting breaker plate, nippers, side guides, and stops, and adjust squareness of book and application of cover, as needed.
7. Perform troubleshooting and problem solving procedures to ensure quality operation.
PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The perfect bound product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM TRIMMING (ADHESIVE BINDING).

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Bound books to be trimmed
- Perfect binding machine with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform trimming (adhesive binding) to produce a finished product to match the job specifications.

PERFORMANCE CRITERIA

The trimmer assembly of the adhesive binding machine is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: The trimmer assembly of the adhesive binding machine is set up and operated to run a quantity of 5,000 - 96 page 8½-by-11-inch books in 1½ hours.)

PERFORMANCE ELEMENTS

1. Set up and operate trimmer by adjusting knives according to book size (e.g., four-edge trimmer, head-tail trim, clamp pads, pressure, etc.).
2. Set machine for correct trim size.
3. Adjust guides to allow proper feeding of book block.
4. Adjust hopper/stacker to allow proper transfer of books into trimming station.
5. Adjust proper clamping pressure.

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The trimmed product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM SADDLE-STITCHING OPERATIONS.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Signatures to be saddle-stitched
- Saddle-stitching equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform saddle-stitching operations to produce a finished product to match the job specifications.

PERFORMANCE CRITERIA

The saddle-stitching equipment is set up and operated in a safe manner.

Time to complete the skill will vary with job specifications.

(Example: A 6-pocket saddle-stitcher is set up to run 5,000 copies of 8-page 8 1/2-by-11 signatures in 3 hours. Approximately 80% of the time in this example is for makeready.)

PERFORMANCE ELEMENTS

1. Make ready and operate signature feeders including adjusting timing of feeders to gathering chain.
2. Load signatures into feeder and adjust feeder to signatures.
3. Make ready and operate stitching equipment.
   a. Set and adjust stitching heads as necessary.
   b. Adjust clincher units.
   c. Set and adjust hold-down guides.
   d. Select proper wire.
   e. Set length of stitch.
4. Set and adjust the timing balance and stroke of the stitching carriage and caliper as necessary.
5. Make ready and adjust trimmer.
   a. Set and adjust timing of trimmer.
   b. Install and remove knives.
   c. Set and adjust trimmer to product.
6. Install, set, and adjust trimmer attachments (e.g., fourth and fifth knives, three-hole punch, etc.) as necessary.
7. Make ready, operate, and maintain stitching and collating accessories.
   a. Cover pocket
   b. Card inserter
   c. Middle knife
   d. Hole puncher
   e. Loop stitcher
   f. Stackers
   g. Wire
   h. Gauges

8. Diagnose common hazards associated with saddle stitching and take precautions to minimize them.
   a. Guards
   b. Moving parts
   c. Oil spills
   d. Jammed switches

9. Troubleshoot stitching process.
   a. Adjust side levers.
   b. Check wire for burning.
   c. Adjust knife.
   d. Straighten wire.
   e. Adjust clutch pressure.

10. Examine stitched publications to ascertain pages are bound in numerical order according to job ticket specifications; verify correct register of print, method of securing, proper collation, and quality of print.

11. Make ready and adjust peripheral and auxiliary equipment.
   a. Counter stacker
   b. Strappers
   c. Mailing equipment

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

The saddle-stitched product matches the job specifications.

**PROCESS**

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM FLAT-STITCHING OPERATIONS.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Sheets to be flat-stitched
- Flat-stitching equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform flat-stitching operations to produce a finished product to match the job specifications.

PERFORMANCE CRITERIA

The flat-stitching machine is set up and operated in a safe manner.
Time required to complete the skill will vary with the job specifications.
(Example: 5,000 booklets 3-by-6 inch booklets, consisting of 60 sheets with backing, are set up and 4-stitched in 1 1/2 hours.)

PERFORMANCE ELEMENTS

1. Relate wire gauge to stitching thickness (e.g., 21 x 25 = 1/16 inch to 1/2 inch; 19 x 21-1/2 = 1/2 inch; to 1 inch, etc.).
2. Set and adjust stitching heads and clinchers to ensure proper stapling.
3. Make ready and operate different types of walk-up stitching units, including multi-head, twin-head, single-head, and table top models.
4. Make ready and operate inline pad stitcher.
5. Make ready and carry out ancillary operations on inline pad stitcher (e.g., feeding unit, pressing unit, cover gluing, precision taping, drilling, trimming [1 or 2 sides], turning unit, gathering, cutting, delivering, etc.).

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The flat-stitched product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM EMBOSsing.

SPECIALTY OPERATIONS

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:

- Stocks to be embossed
- Embossing equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform embossing to produce a product to match the job specifications.

PERFORMANCE CRITERIA

The embossing equipment is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: A 1/8-inch single-level embossed border forms a 1-inch square; a quantity of 5,000 sheets are embossed in 3 1/2 hours.)

Note: Embossing is not registered to a printed image.

PERFORMANCE ELEMENTS

1. Lock up embossing die in press.
2. Set guides according to job specifications.
3. Adjust feeder and delivery sections of press.
4. Put embossing board on makeready plate.
5. Determine proper temperature and adjust heating unit to that temperature.
6. Stamp image onto embossing board.
7. Cut image out of embossing board.
8. Adhere overlay on top of cut image.
9. Run embossing job.
10. Check embossing job and make adjustments as needed.
PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The embossed product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM FOIL-STAMPING.

SPECIALTY OPERATIONS

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Stock to be foil-stamped
- Foil-stamping equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform foil-stamping operations to produce a finished product to match the job specifications.

PERFORMANCE CRITERIA

The foil-stamping equipment is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: An 1/8-inch foil-stamped border forms a 1-inch square; a quantity of 5,000 sheets are foil-stamped in 3 1/2 hours.)

Note: Foil-stamping is not registered to a printed image

PERFORMANCE ELEMENTS

1. Lock up foil-stamping die in press.
2. Set guides according to job specifications.
3. Adjust feeder and delivery sections of press.
4. Determine the proper temperature and adjust heating unit to that temperature.
5. Adhere phenolic/counter board to makeready plate.
6. Make impression on draw sheet and patch low spots.
7. Secure draw sheet under counter.
8. Select foil that meets job specifications; string and adjust foil.
10. Check foil-stamping job and make adjustments as needed.
PERFORMANCE ASSESSMENT CRITERIA

**PRODUCT**

The foil-stamped product matches the job specifications.

**PROCESS**

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM DIE-CUTTING.

SPECIALTY OPERATIONS

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Stock to be die-cut
- Die-cutting equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform die-cutting operations to produce a finished product to match the job specifications.

PERFORMANCE CRITERIA

The die-cutting equipment is set up and operated in a safe manner.
Time required to complete the skill will vary with the job specifications.
(Example: An automated sheetfed press is set up and runs a quantity of 5,000 9-by-12-inch pocket folders with two 4-inch pockets [with glue flaps] in 3½ hours.

PERFORMANCE ELEMENTS

1. Lock up die-cutting die in press.
2. Make adjustments so that die is cutting properly and proper registration is achieved.
3. Determine and apply proper creasing matrix.
4. Adjust makeready for quality cutting and scores.
5. Set and adjust feeder, stripper, and delivery sections of press.
6. Run die-cutting job.
7. Check die-cutting job and make adjustments as needed.
8. Strip waste paper.

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The final die-cut product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
CONDITIONS OF PERFORMANCE

Given the following:

- Product ready for addressing
- Ink jet equipment with accessories
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform ink-jet printing operations to produce a finished product to match the job specifications.

PERFORMANCE CRITERIA

The ink jet equipment is set up and operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: One 8-line, one-color water-based ink system is set up to run a quantity of 5,000 8½-by-11-inch pieces in 2 hours.)

PERFORMANCE ELEMENTS

1. Move customer data tapes into ink jet system by coding appropriate messages and fields and entering demographic/book pocket assignments.
2. Convert tapes to disk format as necessary.
3. Replenish ink and make up ink supply for ink jet printer.
4. Ensure that ink jet printers necessary for job are positioned correctly on machine.
5. Inspect forms to be printed and set up print stations.
6. Clean heads and filters on ink jet system (e.g., controller filter, A/C filter, electronic rack filters, etc.).
7. Ensure all print heads have covers and stop blocks.
8. Set up ink stand for printer.
9. Troubleshoot ink jet system including inspecting each printer/print head for defects and correcting any defects found (e.g., stripped screws, loose deflector plates, etc.).
10. Follow procedures and be able to power up and power down printer.
PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The ink-jet final product matches the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
PERFORM MAILING OPERATIONS.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

Given the following:
- Finished printed product
- Mailing equipment
- Operation/service manuals
- Facility policy and procedures
- Job specifications

WORK TO BE PERFORMED

Perform mailing functions in accordance with appropriate mailing specifications.

PERFORMANCE CRITERIA

The final bundles are packaged and labeled with 100% accuracy.

Time required to complete the skill will vary with the job specifications.

(Example: Based on normal operations, a quantity of 5,000 copies are packaged, verified and prepared for shipment in 45 minutes.)

PERFORMANCE ELEMENTS

1. Check mailing and bindery instructions for proper placements of address label or inkjet printing of names and addresses; compare with verification sheet.
2. Compare placement of address label, ink jet address, or message to each other to ensure address or message integrity is maintained.
3. Place bundles of product (after shrink-wrapped or strapped) in stacks, on pallets or in cartons.
4. Place proper “destination flag” on outside of pallet; shrink-wrap pallet to maintain integrity for transportation by forklift or pallet jack.
5. Ensure that “re-ordered” catalog is placed back in proper bundle (ink jet applications only).
PERFORM MAILING OPERATIONS. (Continued)

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The final product is prepared for shipment according to the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
**PERFORM DISTRIBUTION OPERATIONS.**

**MAILING AND DISTRIBUTION OPERATIONS**

**SKILL STANDARD**

**CONDITIONS OF PERFORMANCE**

Given the following:
- Finished printed product
- Distribution equipment
- Operation/service manuals
- Facility policy and procedures
- Job specifications

**WORK TO BE PERFORMED**

Perform distribution operations of final product according to job specifications.

**PERFORMANCE CRITERIA**

The distribution equipment (e.g., computers, printers, etc.) is operated in a safe manner.

Time required to complete the skill will vary with the job specifications.

(Example: A quantity of 5,000 copies are dispatched to one destination in 30 minutes; time includes bill of lading and contacting carrier.)

**PERFORMANCE ELEMENTS**

1. Utilize relevant postal regulations and be able to provide expert advice to both internal and external clients.
2. Utilize company and postal specifications, rules, and regulations for mail preparation and handling.
3. Estimate postage costs for both internal and external customers.
4. Consult with internal and external customers on most efficient and cost effective methods of mailing.
5. Create and maintain database of selected information by inputting and regularly updating demographic information.
6. Create report formats and produce reports utilizing database.
7. Prepare shipping documents for both domestic and international delivery.
PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The final product is distributed according to the job specifications.

PROCESS

The performance elements are numbered to show an appropriate sequence for completing the skill; however, a different sequence may be used.
### APPENDIX A

#### GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Skills</strong></td>
<td>Skills (and related knowledge) contained in the subject areas and disciplines addressed in most national and state educational standards, including English, mathematics, science, etc.</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td>A process of measuring performance against a set of standards through examinations, practical tests, performance observations and/or the completion of work portfolios.</td>
</tr>
<tr>
<td><strong>Content Standard</strong></td>
<td>A specification of what someone should know or be able to do to successfully perform a work activity or demonstrate a skill.</td>
</tr>
<tr>
<td><strong>Critical Work Functions</strong></td>
<td>Distinct and economically meaningful sets of work activities critical to a work process or business unit which are performed to achieve a given work objective with work outputs that have definable performance criteria. A critical work function has three major components:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Conditions of Performance</strong>: The information, tools, equipment and other resources provided to a person for a work performance.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Work to Be Performed</strong>: A description of the work to be performed.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Performance Criteria</strong>: The criteria used to determine the required level of performance. These criteria could include product characteristics (e.g., accuracy levels, appearance), process or procedure requirements (e.g., safety, standard professional procedures) and time and resource requirements. The IOSSCC requires that these performance criteria be further specified by more detailed individual performance elements and assessment criteria.</td>
</tr>
<tr>
<td><strong>Credentialing</strong></td>
<td>The provision of a certificate or award to an individual indicating the attainment of a designated set of knowledge and skills and/or the demonstration of a set of critical work functions for an industry/occupational area.</td>
</tr>
<tr>
<td><strong>Illinois Occupational Skill Standards and Credentialing Council (IOSSCC)</strong></td>
<td>Legislated body representing business and industry which establishes skill standards criteria, endorses final products approved by the industry subcouncil and standards development committee and assists in marketing and dissemination of occupational skill standards.</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>Type of economic activity, or product or service produced or provided in a physical location (employer establishment). They are usually defined in terms of the Standard Industrial Classification (SIC) system.</td>
</tr>
</tbody>
</table>
Industry Subcouncil

Representatives from business/industry and education responsible for identifying and prioritizing occupations for which occupational performance skill standards are adapted, adopted or developed. They establish standards development committees and submit developed skill standards to the IOSSCC for endorsement. They design marketing plans and promote endorsed skill standards across the industry.

Knowledge

Understanding the facts, principles, processes, methods and techniques related to a particular subject area, occupation or industry.

Occupation

A group or cluster of jobs, sharing a common set of work functions and tasks, work products/services and/or worker characteristics. Occupations are generally defined in terms of a national classification system including the Standard Occupational Classification (SOC), Occupational Employment Statistics (OES) and the Dictionary of Occupational Titles (DOT).

Occupational Cluster

Grouping of occupations from one or more industries that share common skill requirements.

Occupational Skill Standards

Specifications of content and performance standards for critical work functions or activities and the underlying academic, workplace and occupational knowledge and skills needed for an occupation or an industry/occupational area.

Occupational Skills

Technical skills (and related knowledge) required to perform the work functions and activities within an occupation.

Performance Standard

A specification of the criteria used to judge the successful performance of a work activity or the demonstration of a skill.

Product Developer

Individual contracted to work with the standard development committee, state liaison, industry subcouncil and IOSSCC for the adaptation, adoption or development of skill standards content.

Reliability

The degree of precision or error in an assessment system so repeated measurements yield consistent results.

Skill

A combination of perceptual, motor, manual, intellectual and social abilities used to perform a work activity.

Skill Standard

Statement that specifies the knowledge and competencies required to perform successfully in the workplace.
<p>| <strong>Standards Development Committee</strong> | Incumbent workers, supervisors and human resource persons within the industry who perform the skills for which standards are being developed. Secondary and postsecondary educators are also represented on the committee. They identify and verify occupational skill standards and assessment mechanisms and recommend products to the industry subcouncil for approval. |
| <strong>State Liaison</strong> | Individual responsible for communicating information among all parties (e.g., IOSSCC, subcouncil, standard development committee, product developer, project director, etc.) in skill standard development. |
| <strong>Third-Party Assessment</strong> | An assessment system in which an industry-designated organization (other than the training provider) administers and controls the assessment process to ensure objectivity and consistency. The training provider could be directly involved in the assessment process under the direction and control of a third-party organization. |
| <strong>Validity</strong> | The degree of correspondence between performance in the assessment system and job performance. |
| <strong>Workplace Skills</strong> | The generic skills essential to seeking, obtaining, keeping and advancing in any job. These skills are related to the performance of critical work functions across a wide variety of industries and occupations including problem solving, leadership, teamwork, etc. |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margaret Blackshe</td>
<td>AFL-CIO</td>
</tr>
<tr>
<td>Judith Hale</td>
<td>Hale Associates</td>
</tr>
<tr>
<td>Michael O'Neill</td>
<td>Chicago Building Trades Council</td>
</tr>
<tr>
<td>Janet Payne</td>
<td>United Samaritans Medical Center</td>
</tr>
<tr>
<td>Gene Rupnik</td>
<td>Hospitality Industry</td>
</tr>
<tr>
<td>Jim Schultz</td>
<td>Illinois Retail Merchants Association</td>
</tr>
<tr>
<td></td>
<td>Walgreen Company</td>
</tr>
<tr>
<td>Larry Vaughn</td>
<td>Illinois Chamber of Commerce</td>
</tr>
</tbody>
</table>
Regina Dodero  
Committee Co-Chair  
Training and Methods Manager  
Madden Communications, Inc.

Max Dilahunty  
Vice President, Consulting Services  
Levi, Ray & Shoup, Inc.

Doug Dougherty  
Committee Co-Chair  
President  
Illinois Telephone Association

Mike Gilley  
Executive Consultant  
Hewlett-Packard

Ron Hawks  
Director, Chicago Graphic Arts Institute  
Graphics Communication International Union (GCIU)

John Highhouse  
Program Director  
Lincoln Trail College, South Campus

Greg Holcomb  
Director of Human Services  
Karmak, Inc.

Jeff King  
Education Representative  
Microsoft, Inc.

Lawrence Kwolek  
Director of Membership Development  
AEA

Dennis Lyle  
President/CEO  
Illinois Broadcasters Association

Karon C. McGrath  
Operations Manager, SACWIS Project  
GetronicsWang

John Maxon  
Vice President and Chief Operations Officer  
Speedcolor, Inc.

Larry Miller  
Director of Switch Engineering  
Illinois Consolidated Communications

Daniel A. Reed  
Head of Department of Computer Science  
University of Illinois at Urbana-Champaign

Candace Renwall  
Executive Director  
Chicago Software Association
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom Riebok</td>
<td>Director of Human Resources</td>
<td>Fox Valley Press Incorporated</td>
</tr>
<tr>
<td>Ron Engstrom</td>
<td>State Liaison</td>
<td>Illinois State Board of Education</td>
</tr>
</tbody>
</table>
## APPENDIX D

### FINISHING AND DISTRIBUTION CLUSTER
#### STANDARDS DEVELOPMENT COMMITTEE

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ron Dooley</td>
<td>R.R. Donnelley &amp; Sons Company</td>
</tr>
<tr>
<td>Don Dunham</td>
<td>Graphic Finishing Industries of Illinois/Binders Industries of America</td>
</tr>
<tr>
<td>Dennis Kirschke</td>
<td>Argus Press</td>
</tr>
<tr>
<td>Scott McPharland</td>
<td>Educator College of DuPage</td>
</tr>
<tr>
<td>Ria Merry</td>
<td>Diecrafters, Inc.</td>
</tr>
<tr>
<td>Marchelle Weir</td>
<td>Quebecor World</td>
</tr>
<tr>
<td>Dennis Carson</td>
<td>Product Developer Western Illinois University</td>
</tr>
<tr>
<td>Ron Engstrom</td>
<td>State Liaison Illinois State Board of Education</td>
</tr>
</tbody>
</table>
APPENDIX E

COMMUNICATIONS/INFORMATION TECHNOLOGY SUBCOUNCIL
FINISHING AND DISTRIBUTION CLUSTER SKILL STANDARDS
RECOGNITION PROPOSAL

I. Occupational Definition and Justification

A. Occupational Definition

Bookbinders and finishing workers bind and finish books, magazines and business forms. Bindery workers perform routine operations such as operating machines that fold, glue, sew, or staple material after it leaves the printing presses. Bookbinders perform more complex binding tasks such as rounding book backs, trimming pages or gluing on covers. Distribution workers prepare the finished product for shipping.

Cutter/Folder occupations include Paper Cutter Operator, Folder Operator and Collator/Gatherer Operator. These individuals prepare the printed material for binding and finishing according to the customer's instructions. The product may require folding and/or cutting.

Binding/Finishing occupations include Adhesive/Perfect Bind Operator and Stitcher Operator. Individuals working in binding take the prepared product and apply the required binding to the final product. This may involve gluing, stitching or stapling.
In some businesses, specialty operations are also included in binding/finishing.
These occupations include Die-cutting Press Operator and Foil-stamping/Embossing Press Operator. These individuals utilize special materials and equipment for more intricate jobs.

Mailing and Distribution occupations include Mailing Operator and Distribution Coordinator. These individuals ensure that the final project is properly readied for distribution.

B. Employment and Earnings Opportunities

1. Education and Training Requirements

The occupations in this occupational cluster require "basic workplace skills and technical training." Skill acquisition through apprenticeship or on-the-job training may be prevalent for many of the persons entering this field.

2. Employment Opportunities

Employment of finishing and distribution workers is expected to grow more slowly than average through 2006. However, a number of job openings will result from the need to replace some of those workers who leave the occupation. Commercial printers will continue to hire post-production workers as the total volume of new catalogs, newspaper inserts, direct mail advertising, magazines and books grows. New automated equipment in the finishing process shorten production time and increase plant productivity.
3. Earnings Opportunities

<table>
<thead>
<tr>
<th></th>
<th>Middle Range Annual Earnings, 1998*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutter/Folder</td>
<td>$19,900 - $27,190</td>
</tr>
<tr>
<td>Binding &amp; Finishing Operator</td>
<td>$21,175 - $30,615</td>
</tr>
<tr>
<td>Mailing and Distribution</td>
<td>$16,850 - $23,275</td>
</tr>
</tbody>
</table>

* Middle range is the middle 50%, i.e., one-fourth of persons in the occupation earn below the bottom of the range and one-fourth of persons in the occupation earn above the top of the range.


II. Occupational Standards and Credentials

A. Occupational Standards and Credentials

The Printing Standards were developed for a cluster of occupations in three major areas:

Imaging Technologist is an individual who provides service and support to the printing industry by working with customers, preparing files for imaging, and seeing those files and materials are correct before being sent to the press technologist.

Press Technologist is an individual who provides service and support to the printing industry by taking the prepared materials from the imaging technologist and prints the specified images on the correct substrate as requested by the customer.

Finishing/Distribution Technologist is an individual who provides service and support to the printing industry by taking the printed material from the press technologist and finishing/distributing the product as specified by the customer.

The Finishing/Distribution standards are included in this book. The Imaging/Prepress and Press books are available separately.

The national printing standards were adapted to conform to the IOSSCC requirements. The performance standards have all the required elements for IOSSCC standards. Future standards revisions or development will also be aligned with national efforts.

B. Assessment and Credentialing System

The National Printing Skill and Knowledge Standards Project were built upon the need for a volunteer assessment system.

The skill standards in this document are built upon the national standards and the Subcouncil will review and consider all alternatives for assessing the performance skill standards and recommend that all trainees achieve recognized assessments when appropriate.
III. Industry Support and Commitment

A. Industry Commitment for Development and Updating

1. The Communications/Information Technology Subcouncil and the Standards Development Committee developed these performance skill standards. The development effort utilized the following steps:
   a. Identification of performance skills
   b. Review of resources
   c. Development of draft performance skills
   d. Convening of Standards Development Committee
   e. Validation and approval of performance skills by Standards Development Committee
   f. Review of skill standards by Standards Development Committee
   g. Review and approval of skill standards by Subcouncil and practitioners
   h. Endorsement of skill standards by the IOSSCC

2. A list of Subcouncil and Standards Development Committee members may be seen in Appendixes C and D, respectively.

B. Industry Commitment for Marketing

The Communications/Information Technology Subcouncil is committed to marketing and obtaining support and endorsements from the leading industry associations impacted by the skill standards. Upon recognition/endorsement of the skill standards by the IOSSCC, the Subcouncil strongly recommends developing and providing an inservice/seminar package for its members for use in providing awareness of and obtaining industry commitment to the development of a full industry marketing plan.

The Subcouncil encourages the availability of occupational skill standards to the public including students, parents, workers, educators at all levels, employers and industry organizations.
### APPENDIX F

#### WORKPLACE SKILLS

##### A. Developing an Employment Plan

1. Match interests to employment area.
2. Match aptitudes to employment area.
3. Identify short-term work goals.
4. Match attitudes to job area.
5. Match personality type to job area.
6. Match physical capabilities to job area.
7. Identify career information from counseling sources.
8. Demonstrate a drug-free status.

##### B. Seeking and Applying for Employment Opportunities

1. Locate employment opportunities.
2. Identify job requirements.
3. Locate resources for finding employment.
4. Prepare a resume.
5. Prepare for job interview.
6. Identify conditions for employment.
7. Evaluate job opportunities.
8. Identify steps in applying for a job.
9. Write job application letter.
10. Write interview follow-up letter.
11. Complete job application form.
12. Identify attire for job interview.

##### C. Accepting Employment

1. Apply for social security number.
2. Complete state and federal tax forms.
3. Accept or reject employment offer.

##### D. Communicating on the Job

1. Communicate orally with others.
2. Use telephone etiquette.
3. Interpret the use of body language.
4. Prepare written communication.
5. Follow written directions.
6. Ask questions about tasks.

##### E. Interpreting the Economics of Work

1. Identify the role of business in the economic system.
2. Describe responsibilities of employee.
3. Describe responsibilities of employer or management.
4. Investigate opportunities and options for business ownership.
5. Assess entrepreneurship skills.

##### F. Maintaining Professionalism

1. Participate in employment orientation.
2. Assess business image, products and/or services.
3. Identify positive behavior.
4. Identify company dress and appearance standards.
5. Participate in meetings in a positive and constructive manner.
6. Identify work-related terminology.
7. Identify how to treat people with respect.
| G. Adapting to and Coping with Change | 1. Identify elements of job transition.  
|                                      | 2. Formulate a transition plan.  
|                                      | 3. Identify implementation procedures for a transition plan.  
|                                      | 4. Evaluate the transition plan.  
|                                      | 5. Exhibit ability to handle stress.  
|                                      | 6. Recognize need to change or quit a job.  
|                                      | 7. Write a letter of resignation.  |
| H. Solving Problems and Critical Thinking | 1. Identify the problem.  
|                                          | 2. Clarify purposes and goals.  
|                                          | 3. Identify solutions to a problem and their impact.  
|                                          | 4. Employ reasoning skills.  
|                                          | 5. Evaluate options.  
|                                          | 6. Set priorities.  
|                                          | 7. Select and implement a solution to a problem.  
|                                          | 8. Evaluate results of implemented option.  
|                                          | 9. Organize workloads.  
|                                          | 10. Assess employer and employee responsibility in solving a problem.  |
| I. Maintaining a Safe and Healthy Work Environment | 1. Identify safety and health rules/procedures.  
|                                                          | 2. Demonstrate the knowledge of equipment in the workplace.  
|                                                          | 3. Identify conservation and environmental practices and policies.  
|                                                          | 5. Maintain work area.  
|                                                          | 6. Identify hazardous substances in the workplace.  |
| J. Demonstrating Work Ethics and Behavior | 1. Identify established rules, regulations and policies.  
|                                       | 2. Practice cost effectiveness.  
|                                       | 3. Practice time management.  
|                                       | 4. Assume responsibility for decisions and actions.  
|                                       | 5. Exhibit pride.  
|                                       | 6. Display initiative.  
|                                       | 7. Display assertiveness.  
|                                       | 8. Demonstrate a willingness to learn.  
|                                       | 9. Identify the value of maintaining regular attendance.  
|                                       | 10. Apply ethical reasoning.  |
| K. Demonstrating Technological Literacy | 1. Demonstrate basic keyboarding skills.  
|                                             | 2. Demonstrate basic knowledge of computing.  
|                                             | 3. Recognize impact of technological changes on tasks and people.  |
| L. Maintaining Interpersonal Relationships | 1. Value individual diversity.  
|                                               | 2. Respond to praise or criticism.  
|                                               | 3. Provide constructive praise or criticism.  
|                                               | 4. Channel and control emotional reactions.  
|                                               | 5. Resolve conflicts.  
|                                               | 6. Display a positive attitude.  
|                                               | 7. Identify and react to sexual intimidation/harassment.  |
| M. Demonstrating Teamwork | 1. Identify style of leadership used in teamwork.  
|                                      | 2. Match team member skills and group activity.  
|                                      | 3. Work with team members.  
|                                      | 4. Complete a team task.  
|                                      | 5. Evaluate outcomes.  |
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