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IDENTIFIERS *Ohio

ABSTRACT

This document contains 272 competencies, grouped into 36 units, for tech prep programs in the business/computer technology cluster. The competencies were developed through collaboration of Ohio business, industry, and labor representatives and secondary and associate degree educators. The competencies are rated either "essential" (necessary to ensure minimal levels of employability by entry employees; must be included in all new tech prep programs) or "recommended" (suggested addition to the State Competency Profile). Competency builders are included for each competency. A matrix relates the units to nine occupations within the business and computer technologies occupational cluster. The units cover the following groups of competencies: employability skills; professionalism; teamwork; professional practices; workplace safety; project management; problem analysis; general administrative functions; economic and business principles; basic computer concepts and applications; technical documentation; customer relations; general office functions; general accounting functions; specialized accounting functions; financial management functions; business law; legal office procedures; legal concepts; computer user support; data warehousing; software methodology; operating systems; application programming and design; network operations; basic mainframe concepts; computer hardware design and maintenance; small business management; supervision; quality assurance; telephony functions; training; statistics; banking basics; world cultures and basic principles of marketing. (KC)

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Business/Computer Technologies

State Competency Profile

February 17-18, 1998
Columbus, Ohio

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Business/Computer Technologies State Competency Profile

This document is the result of collaboration between a number of individuals and organizations. The Ohio Department of Education and the Ohio Board of Regents provided financial and staff support for the development of the document. Betty Rider and Larry Casterline, Consultants, Tech Prep Curriculum Services, edited the initial document upon which the current document is based. Guidance in document development was provided by a futuring panel composed of Ohio Business, Industry and Labor Representatives. (See attached list of members of the February 4, 1998 Futuring Panel.)

The current document is a result of a review by a state panel of business/industry/labor representatives and secondary/associate degree educators on February 17-18, 1998. (The name and institutional affiliation of each panel member is provided on the following pages.) Jan Eley, Akron Area Tech Prep Consortium and Linda Fauber, Lakeland Tech Prep Consortium, served as meeting facilitators. They were assisted by Julie Daugherty, Eastern Ohio Valley Tech Prep Consortium, Larry Casterline, Tech Prep Curriculum Services Consultant, Jan Donley, Cincinnati State University, and Bev Smith, Miami Valley Tech Prep Consortium.

As you review the document, keep in mind the following:

Essential Competencies

Those competencies marked *Essential* in the State Competency Profile were determined by the statewide business/industry/labor panel to be necessary to ensure minimal levels of employability. Entry level employees should be able to perform this competency without supervision; therefore, students must be proficient in these competencies at least by the end of the Associate Degree.

Essential competencies must be included in all new Tech Prep programs. Tech Prep consortia with current programs in this area will be expected to phase-in essential competencies into their programs as well.

Wording of essential competencies may not be altered. The leveling may only be changed to deliver the competency earlier during the educational process. For example, the leveling of an essential competency in the State Competency Profile may be altered locally from a P or Proficiency leveling at the end of the Associate Degree to a P or Proficiency by the end of the 12th grade. The reverse is not permissible. For example, a competency leveled P or Proficient by the end of the 12th grade in the State Competency Profile cannot be changed locally to a P or Proficiency by the end of the Associate Degree. For additional information on leveling of competencies, refer to the Leveling Code Sheet in this document.

Competency builders are intended to help define each competency; therefore, the builders may be modified locally as long as that modification does not change or dilute the intent of the State Panel.

Issues which arise regarding delivery of the *essential* competencies once the program is implemented will be addressed by a State review panel of business/industry/labor and education representatives with possible revisions to the State Competency Profile at a later date. Any issues identified during the local verification meeting should be conveyed to Tech Prep Curriculum Services by the consortium coordinator.

Recommended Competencies

The competencies marked *Recommended* are suggested additions to the State Competency Profile. Each of these competencies should be reviewed during a local competency profile meeting; with a joint panel of business/industry/labor and education representatives deciding whether to include each competency in the local curriculum. The decision should be based upon a consideration of local business needs, as well as priorities and time constraints of the educational process. Wording and leveling of all recommended competencies and builders may be modified.

Additional Units/Competencies/Builders

Competencies and/or builders may be added to any unit in the State Competency Profile. Additional units may also be added.

Occupation Definitions

Skills may be added to the occupational definitions based on the modifications made during the competency review. Because the definition is based on the skills detailed in the competency profile, only minor modifications should be necessary.

For additional information about this State Tech Prep Competency Profile contact:

Tech Prep Curriculum Services
Center on Education and Training for Employment
The Ohio State University
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(614) 292-8404

**Business & Computer Technologies Futuring Panel
February 4, 1998
Columbus, Ohio**

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Panel Facilitator

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Director IT Solutions
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Terry TerMeer, Special Projects Director
Secretary of State's Office
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Beth Mantle, Director
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Business/Computer Technologies State Competency Profile Meeting

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Carrington South, Poland, Ohio

Vicki Boroski, Office Management
Jefferson Community College, Steubenville, Ohio

Kevin R. Brooker, Business/Computer Network
Health Recovery Services, Athens, Ohio

Chris Burton, Fiscal/Human Resources Officer, History
Ohio State University, Columbus, Ohio

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Melissa Flinn, Management Information Specialist
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Rittal Corporation, Springfield, Ohio

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Ohio Society of CPA, Dublin, Ohio

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Computer People Consulting, Columbus, Ohio

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Keller CPA, Columbus, Ohio

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LDA Systems, Inc., Dublin, Ohio

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Gates McDonald, Hilliard, Ohio

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Ohio State University, Columbus, Ohio

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Key Bank, Westerville, Ohio

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Summit Financial Services, Columbus, Ohio

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Speedway SuperAmerica LLC, Springfield, Ohio

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Longaberger, Newark, Ohio

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Jefferson County Educational Service Center, Steubenville, Ohio

Business/Computer Technologies State Competency Profile Meeting

Educator Panel

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University of Rio Grande, Rio Grande, Ohio

John Bennett, Instructor, Math
Martins Ferry High School, Martins Ferry, Ohio

Steward Bonem, Instructor, Finance/Accounting
Cincinnati State Technical Community College, Cincinnati, Ohio

Tina Brooker, Instructor, Math
Tri-County JVS, Nelsonville, Ohio

Steve Chrisman
Springfield Clark JVS, Springfield, Ohio

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Cincinnati State, Cincinnati, Ohio

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Martins Ferry High School, Martins Ferry, Ohio

Tony D'Aurora, Computer Programming
Steubenville High School, Steubenville, Ohio

Deana DeWorth, Instructor, Special Education
North Union High/Middle School, Richwood, Ohio

Larry Duck, Microcomputer Applications Specialist
Martins Ferry High School, Martins Ferry, Ohio

Colleen Dunn, Business/Retail Management
Jefferson Community College, Steubenville, Ohio

Cathy Evans, Instructor, Business Tech Prep
Tri-County JVS, Nelsonville, Ohio

Marge Flouhouse, Management Information Specialist
Steubenville High School, Steubenville, Ohio

Eric Geissler, Instructor, English/Communications
Marion Technical College, Marion, Ohio

Dennis George, Office Management Specialist
Steubenville High School, Steubenville, Ohio

Vicki Hammer, Instructor, Office Administration
University of Cincinnati-Raymond Walters College, Cincinnati, Ohio

Amy Hartman, Instructor, Communications
Tri-County JVS, Nelsonville, Ohio

Bruce Hotlosz, Computer Support Technician
Martins Ferry High School, Martins Ferry, Ohio

Bill Hope, Instructor, Communications
Jefferson Community College, Steubenville, Ohio

Jay Jacquet, Chair, Business Technologies
Central Ohio Technical College, Newark, Ohio

Jennifer Jordan, Instructor, Business Computer/Accounting
Hamilton High School, Hamilton, Ohio

Glenda Kunar
Youngstown State University, Youngstown, Ohio

Mike Laird, Microcomputer Application Specialist
North Union High School, Richwood, Ohio

Karen Lloyd, Instructor, Communications
Martins Ferry High School, Martins Ferry, Ohio

Paul Matuska, Instructor, Science
Martins Ferry High School, Martins Ferry, Ohio

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Sandy Mershon, Instructor, Office Management
University of Rio Grande, Rio Grande, Ohio

Frank Mioduszewski, Management Information Specialist
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Springfield Clark JVS, Springfield, Ohio

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Jefferson Community College, Steubenville, Ohio

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Jefferson Community College, Steubenville, Ohio

Scott Potter, Instructor, Soft Sciences
Marion Technical College, Marion, Ohio

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Fitch High School, Austintown, Ohio

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Jackson High School, Jackson, Ohio

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LEVELING CODES

GRADE LEVEL

12 = by the end of grade 12
 AD = by the end of the Associate Degree

DEPTH

I = Introduce (applies to at least three or 25% of the competency builders)
 R = Reinforce or add depth (after introducing or proficiency)
 P = Proficient (achievement of the competency **without** supervision)

ACADEMIC CODES

C = Communications related
 M = Mathematics related
 S = Science related

OTHER (Determined by Business, Industry and Labor Panel)

Essential Competency: Competency is needed to ensure **minimal** level of employability. Entry level employees should be able to perform this competency without supervision. Competencies required for certification, licensure, and/or national skills standards should be tagged as essential.
Recommended Competency: Competency should be included but is not essential for minimal level of employability.
Delete: Competency should not be included.

Example:

BIL: Essential Recommended Delete

| | | | |
|-----|----|----|----|
| | 12 | AD | AC |
| EDU | P | R | C |

Competency: XXXXXXXX

Example:

BIL: Essential Recommended Delete

| | | | |
|-----|----|----|----|
| | 12 | AD | AC |
| EDU | P | R | C |

Competency: YYYYYYYY

Competency Builders:

SSS
 XXX M

REFERENCE SHEET

Competencies in this document were compared against Occupational Competency Analysis Profiles (OCAP) and the National Standards for Business Education. Where the Tech Prep competencies were similar to, or comparable to the OCAPs or national standards, a notation was made beside the competency or builder. The following notation system was used:

- # OCAP
- #A OCAP advancing skill
- * National Standards for Business Education

Business/Computer Technologies

Job Definitions

Job definitions are not job descriptions. They are broader in focus and provide general skill training directions.

Accounting Specialist—An individual who provides technical administrative support to professional accountants and other financial management personnel. Technical skills should include, but not be limited to:

- basic financial knowledge
- general accounting principles
- basic financial report preparation
- basic financial record analysis
- basic tax compliance
- record keeping & posting transactions
- documentation & organizational skills
- accounting software skill
- information access and usage

Financial Management Assistant—An individual who assists in the financial planning, procurement, and investment of funds for an organization or individuals. Technical skills should include, but not be limited to:

- basic financial knowledge
- general accounting principles
- basic financial report preparation
- basic financial record analysis
- basic tax compliance
- basic financial planning
- documentation & organizational skills
- financial planning accounting software usage
- information access and usage

Office Management Specialist—An individual who supervises and manages the operations of a business office at management levels. Technical skills should include, but not be limited to:

- business communications and coordination
- office systems operations and procedures
- data preparation and evaluation
- office equipment operation and maintenance
- public relation skills

Programming & Applications Specialist—An individual who applies software theory and programming methods to the solution of business data problems. Technical skills should include, but not be limited to:

- programming skills and languages
- interface theory
- problem analysis
- input specification
- report generation
- documentation skills
- prototype design and testing
- customized software applications
- basic data warehousing
- information access and usage
- keyboarding skills
- operating systems
- basic data communication

Microcomputer Applications Specialist—An individual who understands software applications and helps the end users. Technical skills should include, but not be limited to:

- desktop productivity tools (e.g., Microsoft Office)
- hardware and software applications
- computer list maintenance
- help desk
- support and training
- keyboarding skills
- documentation skills
- information skills
- information access and usage
- operating systems
- application analysis/implementation
- diagnostic skills

Network Systems Technician—An individual who ensures computer hardware and software compatibility. Technical skills should include, but not be limited to:

- network, PC, & UNIX operating systems
- hardware and communication system recommendations
- hardware/operating system integration
- set-up operating systems integration
- set-up operational networks
- train network users
- troubleshoot networks and PCs

- records management
- computer skills
- basic data warehousing
- information access and usage
- labor law/personnel issues

Legal Administrative Assistant—An individual who assists with research and drafting of documents and correspondence; maintains files, time and billing records, and docket management; and performs related administrative functions under the supervision of an attorney(s). Technical skills should include, but not be limited to:

- research and analysis skills
- legal document preparation
- legal terminology
- court rules and procedures
- knowledge of various court systems
- docket management and scheduling
- knowledge of ABA code of ethics
- business law
- file organization
- computer skills
- time management
- information access and usage

Management Information Specialist—An individual who provides and manages data systems and related facilities for processing and retrieving business information. Technical skills should include, but not be limited to:

- business systems networking
- repositories
- database management
- data modeling
- integration theory
- management and control systems
- cost and accounting information
- computer operation and maintenance
- data storage and security
- supervision and training
- documentation skills
- data report writing skills
- basic data warehousing
- information access and usage

- multi-user network maintenance
- network security
- disaster recovery
- documentation skills
- information access and usage

Information Support Specialist/Computer Support Technician--An individual who researches, plans, and evaluates current and future software and office system equipment needs based on user requirements. Technical skills should include, but not be limited to:

- desktop operating systems
- problem analysis
- system configurations
- personal computer system maintenance
- initial hook-up of hardware
- software installation
- train software system users
- maintain software library
- project management
- documentation skills
- fundamental programming skills
- troubleshooting skills for network systems & PCs
- information access and usage

Business/Computer Technologies Cluster Tech Prep Competency Profile Matrix

AS = Accounting Specialist **PS =** Programming & Applications Specialist
FM = Financial Management Assistant **MA =** Microcomputer applications Specialist
OM = Office Management Specialist **NT =** Network Systems Technician
LA = Legal Administrative Assistant **IS =** Information Support Specialist/Computer Support Technician
MI = Management Information Specialist

| Small Type | Large Type | UNIT | AS | FM | OM | LA | MI | PS | MA | NT | IS |
|------------|------------|--|----|----|----|----|----|----|----|----|----|
| 1 | 1 | Employability Skills | X | X | X | X | X | X | X | X | X |
| 11 | 18 | Professionalism | X | X | X | X | X | X | X | X | X |
| 21 | 31 | Teamwork | X | X | X | X | X | X | X | X | X |
| 25 | 40 | Professional Practices | X | X | X | X | X | X | X | X | X |
| 29 | 46 | Workplace Safety | X | X | X | X | X | X | X | X | X |
| 31 | 51 | Project Management | X | X | X | X | X | X | X | X | X |
| 36 | 56 | Problem Analysis | X | X | X | X | X | X | X | X | X |
| 39 | 59 | General Administrative Functions | X | X | X | X | X | X | X | X | X |
| 43 | 64 | Economic & Business Principles | X | X | X | X | X | X | X | X | X |
| 53 | 77 | Basic Computer Concepts & Applications | X | X | X | X | X | X | X | X | X |
| 74 | 109 | Technical Documentation | X | X | X | X | X | X | X | X | X |
| 76 | 112 | Customer Relations | X | X | X | X | X | X | X | X | X |
| 78 | 114 | General Office Functions | | | X | X | | | | | |
| 88 | 126 | General Accounting Functions | X | X | X | X | | | | | |
| 97 | 141 | Specialized Accounting Functions | X | | S | | | | | | |
| 116 | 162 | Financial Management Functions | | X | | | | | | | |
| 125 | 175 | Business Law | X | X | | | | | | | |
| 135 | 186 | Legal Office Procedures | | | S | X | | | | | |
| 140 | 192 | Legal Concepts | | | S | X | | | | | |

X = Required for the occupation
S = Required/Recommended only for specialization within an occupation
R = Recommended

AS = Accounting Specialist
FM = Financial Management Assistant
OM = Office Management Specialist
LA = Legal Administrative Assistant
MI = Management Information Specialist
PS = Programming & Applications Specialist
MA = Microcomputer applications Specialist
NT = Network Systems Technician
IS = Information Support Specialist/Computer Support Technician

| Small Type | Large Type | UNIT | AS | FM | OM | LA | MI | PS | MA | NT | IS |
|------------|------------|--|----|----|----|----|----|----|----|----|----|
| 150 | 202 | Computer User Support | | | | | X | S | X | X | S |
| 151 | 203 | Data Warehousing | | | R | R | R | R | R | | |
| 156 | 209 | Software Methodology | | | | | X | X | S | | |
| 160 | 215 | Operating Systems | | | | | X | X | X | X | X |
| 169 | 228 | Application Programming & Design | | | | | S | X | | | S |
| 183 | 249 | Network Operations | | | | | S | | | X | X |
| 196 | 269 | Basic Mainframe Concepts | | | | | X | S | | S | |
| 204 | 278 | Computer Hardware Design & Maintenance | | | | | | S | | X | X |
| 217 | 293 | Small Business Management | X | X | S | S | | | | | |
| 233 | 312 | Supervision | | | X | X | S | | | | |
| 238 | 320 | Quality Assurance | | | | | X | X | | X | X |
| 240 | 322 | Telephony Functions | | | | | | | | S | S |
| 242 | 325 | Training | | | X | | S | | S | | |
| 249 | 332 | Statistics | X | X | | | | S | | S | |
| 256 | 339 | Banking Basics | X | X | S | | | | | | |
| 266 | 351 | World Cultures | R | R | S | | | | | | |
| 272 | 361 | Basic Principles of Marketing | | | S | | | | | | |

X = Required for the occupation
 S = Required/Recommended only for specialization within an occupation
 R = Recommended

Unit: Employability Skills

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Develop a career plan # *

Competency Builders:

- Identify current interests and aptitudes
- Identify common barriers to employment
- Describe strategies to overcome employment barriers
- Locate resources for finding employment
- Research job trends
- Identify career options
- Identify advantages and disadvantages of career options (in addition to monetary)
- Identify job requirements
- Investigate education/training opportunities (including speaking with someone in the trade)
- Evaluate personal strengths and weaknesses
- Refine a written educational plan which leads to a specific career field
- Create career passport

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Prepare for employment # *

Competency Builders:

- Identify employment sources
- Identify advantages and disadvantages of self-employment
- Identify present and future employment opportunities (by geographic location)
- Research job opportunities
- Compare salary ranges and benefit packages
- Compile occupational profile
- Identify rights and responsibilities of equal employment opportunity laws
- Demonstrate ability to accurately complete a job application
- Design resume and cover letter
- Target resume
- Secure references
- Investigate generic and specific employment tests (e.g., civil service exam; drug screening)
- Use follow-up techniques to enhance employment potential
- Demonstrate legible written communication skills using correct grammar, spelling, punctuation, and concise wording
- Use proper diction in interviews
- Describe methods for handling illegal questions on job application forms and during interviews
- Write letter of application
- Research prospective employer and services performed
- Explain critical importance of personal appearance, hygiene, and demeanor
- Interpret job description
- Demonstrate appropriate interview question and answer techniques
- Demonstrate methods for handling difficult interview questions using simulated role playing exercises

Describe procedures for following up after an interview
Evaluate job offers
Give notice to employer of job change
Write letter of acceptance
Write letter of declination
Demonstrate good listening skills
Ask for the job tactfully
Participate in extracurricular activities (e.g., student government, community projects)

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Evaluate the importance of self-esteem as an employability skill # *

Competency Builders:

Identify factors that affect self-esteem

Compare effects of low self-esteem and high self-esteem

Identify strategies to promote positive self-esteem

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Demonstrate job retention skills # *

Competency Builders:

Identify employer expectations regarding job performance, work habits, attitudes, personal appearance, and hygiene

Exhibit appropriate work habits and attitude

Demonstrate ability to set priorities

Identify behaviors to establish successful working relationships

Identify alternatives for dealing with harassment, bias, and discrimination based on race, color, national origin, sex, religion, handicap, or age

Identify opportunities for advancement

List reasons for termination

List consequences of being absent frequently from job

List consequences of frequently arriving late for work

Demonstrate interpersonal relations skills (e.g., verbal and written)

Demonstrate negotiation skills

Demonstrate teamwork

Follow chain-of-command

Exhibit appropriate job dedication

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Demonstrate knowledge of work ethic # *

Competency Builders:

Define work ethic

Identify factors that influence work ethic

Differentiate law and ethics

Describe how personal values are reflected in work ethic

Describe how interactions in the workplace affect personal work ethic

Describe how life changes affect personal work ethic

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Exhibit appropriate work ethic # *

Competency Builders:

Use time-management techniques

Avoid personal activity during work hours

Attend work as scheduled

Adhere to company and/or governmental policies, procedures, rules, and regulations

Exercise confidentiality

Demonstrate appropriate human relations skills

Adhere to rules of conduct

Accept constructive criticism

Offer constructive criticism

Take pride in work

Resolve conflict

Manage stress

Avoid sexual connotations and harassment

Adjust to changes in the workplace

Demonstrate punctuality

Assume responsibility for personal decisions and actions

Take responsibility for assignments

Follow chain-of-command

BIL: Essential

| | | | |
|-------------|----|----|-----|
| EDU: | 12 | AD | AC |
| | P | R | C,S |

Competency: Apply decision-making techniques # *

Competency Builders:

Identify decision to be made

Identify possible alternatives and their consequences

Make decisions based on facts, legality, ethics, goals, and culture

Apply time factor(s)

Present decision to be implemented

Evaluate decision made

Take responsibility for decision

Identify ownership of decision to be made

BIL: Essential

| | | | |
|-------------|----|----|-----|
| EDU: | 12 | AD | AC |
| | P | R | C,S |

Competency: Apply problem-solving techniques #

Competency Builders:

Identify problem

Select appropriate problem solving tools/techniques

Identify root problem cause(s)

Track root problem cause(s)

Identify possible solutions and their consequences (e.g., long term, short term, crisis)

Use resources to explore possible solutions to problem

Contrast advantages and disadvantages of each solution

Identify appropriate action

Evaluate results

Identify post-preventive action

BIL: Essential

| | | | |
|-------------|----|----|----|
| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Exhibit characteristics for job advancement # *

Competency Builders:

Display positive attitude

Demonstrate knowledge of position

Perform quality work

Adapt to changing situations and technology

Demonstrate capability/responsibility for different positions

Identify characteristics of effective leaders

Identify opportunities for leadership in work place/community

Demonstrate initiative to affect change in workplace

Participate in continuing education/training program

Respond appropriately to criticism from employer, supervisor, or other employees

Exhibit awareness of corporate culture

Prepare for job setbacks

Exhibit continual growth based on performance evaluation

Set realistic goals

Unit: Professionalism

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Project professional image # *

Competency Builders:

Define professionalism

Exhibit professional appearance

Exhibit professional manners

Project professional attitude

Identify individual's vital role in organization

Exhibit proper etiquette in professionally-related situations

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Formulate individual and professional goals # A *

Competency Builders:

Set flexible, realistic, and measurable goals

Identify potential barriers to achieving goals

Identify strategies for addressing barriers to goal achievement

Breakdown long-term goals into short-term goals

Prioritize goals

Commit to goals

Adjust goals

Obtain support for goals

Reward goal achievement

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Organize personal finances # *

Competency Builders:

Explain need for personal management records

Balance checkbook

Identify tax obligations

Analyze how credit affects financial security

Compare types and methods of investments

Compare types and methods of borrowing

Compare types and methods of insurance

Compare types of retirement options/plans

Identify discretionary vs. non-discretionary expenditures

BIL: Recommended

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| EDU: | 12 | AD | AC |
| | I | R | S,C |

Competency: Support community well-being *

Competency Builders:

- Identify environmental, educational, and social issues
- Participate in social and/or community/industry activities
- Participate in industry activities and organization

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Achieve organizational goals *

Competency Builders:

- Evaluate personal goals in relation to organizational goals
- Monitor progress by evaluating feedback
- List responsibilities in relation to organizational goals
- Accomplish assigned tasks
- Exercise responsibility in relation to organizational goals
- Set appropriate personal performance standards
- Communicate goals with supervisor and peers
- Demonstrate knowledge of products and services
- Promote organizational image and mission

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate positive relations in the workplace # *

Competency Builders:

Identify personality types

Identify methods of working with various personalities

Identify various management styles

Support organization expectations

Support organization decisions

Accept constructive criticism

Give constructive feedback

Adapt to changes in workplace

List factors to consider before resigning

Write letter of resignation

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Manage stressful situations

Competency Builders:

Accept stress as part of daily life

Identify personal and professional factors contributing to stress

Describe physical and emotional responses to stress

Evaluate positive and negative effects of stress on productivity

Identify strategies for reducing stress

Identify positive methods to channel stress

Implement strategies to manage stress

Create strategies for developing and maintaining support systems

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Analyze effects of family on work and work on family #

Competency Builders:

- Identify how family values, goals, and priorities are reflected in work place
- Identify responsibilities and rewards associated with paid and non-paid work
- Identify responsibilities and rewards associated with families
- Explain how family responsibilities can conflict with work
- Explain how work can conflict with family responsibilities
- Explain how work-related stress can affect families
- Explain how family-related stress can affect work
- Identify family support systems and resources
- Identify work-related support systems and resources
- Communicate with family regarding work

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Apply lifelong learning skills # *

Competency Builders:

Define lifelong learning

Identify factors that cause need for lifelong learning

Analyze effects of change

Identify reasons why goals change

Describe importance of flexibility and adaptability

Evaluate need for continuing education/training

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage professional development *

Competency Builders:

Identify career opportunities

Modify career plan

Participate in continuing education/training opportunities

Document continuing education/training

Read profession-related manuals, technical journals, and periodicals

Attend meetings, workshops, seminars, conferences, and demonstrations

Participate in professional organizations

Build personal/professional mentor relationship

Build personal/professional support system

Build professional network

Strengthen communication skills

Strengthen leadership skills

Strengthen management skills

Unit: Teamwork

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Demonstrate knowledge of teamwork # *

Competency Builders:

Define self-direction

Define responsibility

Define accountability

Differentiate work groups and teams (e.g., internal, external)

Identify conditions essential to teamwork (e.g., problem solving)

Explain influence of culture (e.g., corporate, community) on teamwork

Identify appropriate situations for using teams

Define team structures (e.g., cross functional, quality improvement, task force, quality circles)

Identify team building concepts

Describe characteristics and dynamics of teams

Identify characteristics of effective team leaders and members

Identify responsibilities of team members

Identify methods of involving each member of a team

Explain how individuals from various backgrounds contribute to work-related situations (e.g., technical training, cultural heritage)

Explain the purpose of facilitators

Define consensus

Define reward/recognition system

Define mutual respect

Define equality

Define "group think"

Provide feedback

Receive feedback

Define communication styles

Define management styles

Define social style

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Demonstrate teamwork # *

Competency Builders:

- Identify purpose of team and intended goal (include time frames)
- Structure team around purpose
- Define responsibilities of team members (e.g., talents, skills, abilities)
- Contribute to efficiency and success of team
- Work toward individual and team milestones
- Analyze results of team project
- Facilitate a team meeting
- Assist team member(s) with problem
- Monitor time frame
- Stress continuous improvement
- Recognize failure as part of learning

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C,S,M |

Competency: Use teamwork to solve problems # *

Competency Builders:

Identify appropriate situations for using teams

Identify quality management processes/techniques

Identify quality assurance processes/techniques

Prepare presentation (e.g., business plan & procedure)

Identify problem

Use problem-solving process in a team setting (e.g., Brainstorm, Pareto, Fishbone)

Identify resources

Gather data

Analyze data

Describe solution options

Implement solution options

Review solution

Review case studies

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Conduct team meetings *

Competency Builders:

- Plan agenda
- Set ground rules
- Schedule meeting and location
- Set time limitations
- Invite appropriate personnel
- Set next team meeting
- Solicit outside speakers as needed
- Select scribe
- Select meeting leader
- Facilitate ground rules
- Select facilitator
- Invite questions and comments and group participation
- Focus team on agenda items
- Assign appropriate action, budget, time frame and accountability to tasks
- Monitor time
- Overcome team impasse
- Close meeting on time
- Publish minutes in timely manner
- Avoid placing individual agendas above the group's agenda

Unit: Professional Practices

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Explain professional responsibilities *

Competency Builders:

Explain the need for professional and ethical standards

Explain responsibility of the individual to apply ethical standards

Identify responsibility to client(s) and employer(s)

Explain consequences of unprofessional and/or unethical behavior

Explain importance of conflict resolution in the workplace

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Identify legal and ethical behavior

Competency Builders:

Differentiate between legal and ethical behavior

Explain terms, principles, and characteristics of legal and ethical behavior (e.g., loyalty, discretion, solicitation, competitor, supplier)

Explain legal ramifications of breaching rules and regulations

Explain effects of unethical and/or unlawful behavior

Practice within scope of the profession

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Function as a self-managed employee

Competency Builders:

Propose project (C)

Organize tasks

Manage time

Meet deadlines

Maintain business records (C)

Make long-term and short-term plans

Evaluate progress

Report progress (C)

Delegate project

Acquire appropriate licenses/registrations

Obtain permits and releases

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Follow intellectual property rights and copyright laws

Competency Builders:

- Explain purpose of patent
- Explain purpose of copyright
- Explain purpose of licenses
- Explain purpose of trademarks
- Explain rights of the originator
- Explain rights of the public
- Define confidentiality
- Define proprietary
- Explain legal ownership of proprietary material
- Describe stock image/text usage rights
- Explain negotiation of contracts
- Explain reproduction licensing and residual usage

Unit: Workplace Safety

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C,S |

Competency: Maintain safe working environment

Competency Builders:

Describe what an MSDS sheet is

Comply with HMIS material safety data sheets (MSDS) and OSHA regulations

Comply with all MSDS regulations regarding hazardous materials

Maintain clean work area by removing waste, keeping alleyways clear, cleaning tools, and preventing spills

Minimize workplace causes of environmental burdening, pollutants, and poisoning

Describe pollution solution limits imposed by permits and regulations

Comply with regulatory guidelines in handling, labeling, and disposal of solutions (e.g., fountain chemicals, inks, wash-up solutions, drum grounding)

Identify visual equipment controls (e.g., monitors, read outs)

Identify auditory equipment controls

Comply with workplace safety rules and procedures

Comply with personal safety rules and procedures

Comply with applicable electrical, mechanical, hydraulic and pneumatic safety rules and procedures

Recycle appropriate materials

Use preventive maintenance checklists

Identify location of control panels, shut-off valves, and fire extinguishers

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of ergonomics

Competency Builders:

Define ergonomics

Define risk factor

Define maximum permissible limit (MPL) and action limit (AL) for lifting

Define cumulative trauma disorder (CTD)

Identify susceptibility factors for CTD

Minimize extreme joint movement

Minimize use of excessive muscle/physical force

Minimize repetitive tasks

Minimize mechanical stresses (e.g., sharp edges, heat, cold, hard surfaces, weights, vibration)

Minimize awkward body positions

Explain use of rest pauses

Explain need for mats and footrest for standing jobs

Explain need for appropriate working heights of chairs, stools, workbenches, equipment

Explain need for adequate lighting

Explain use of anthropocentric design (e.g., centering one's view of everything around man)

Unit: Project Management

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Explain project management *

Competency Builders:

Identify project purpose/goal

Identify project objectives

Identify work breakdown structure (WBS)

Identify resource requirements

Identify project economics/funding

Identify risks

BIL: Recommended

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| EDU: | 12 | AD | AC |
| | I | R | M |

Competency: Plan projects *

Competency Builders:

Apply responsibility assignment matrix (RAM)

Apply Gantt or bar charts

Apply network diagrams

Apply critical path method (CPM)

Apply project education and review techniques (PERT)

Apply software programs

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C,M,S |

Competency: Implement projects *

Competency Builders:

Monitor project

Control project

Modify project

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C,M,S |

Competency: Evaluate projects *

Competency Builders:

Analyze performance

Perform critical review of project

Draw project management conclusions

BIL: Recommended

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Write project summary *

Competency Builders:

List project goals

Document project's key successes

Document project's key failures

Analyze costs vs. accomplishments

Unit: Problem Analysis

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M,C,S |

Competency: Appraise situations #

Competency Builders:

Identify concerns

Set priorities

Identify resolution process

Plan resolution

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Analyze problems #

Competency Builders:

Identify potential problems

Identify likely causes

Test for probable causes

Verify cause

Identify preventive actions

Identify contingent actions

BIL: Recommended

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| EDU: | 12 | AD | AC |
| | I | P | M,C,S |

Competency: Analyze decisions #

Competency Builders:

- Identify objective(s)
- Identify alternatives
- Evaluate alternatives
- Assess risks
- Make final choice
- Determine effectiveness of decision
- Document results

Unit: General Administrative Functions

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M,C,S |

Competency: Maintain work flow #

Competency Builders:

Organize work

Prioritize work

Apply time-management techniques

Complete assigned tasks in a timely manner

Coordinate with team members

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Perform telecommunications operations #

Competency Builders:

Display telephone etiquette

Operate equipment

Listen assertively

Verify information

Record messages

Place calls

Organize teleconferences

Use voice mail/messaging systems

Operate fax/modem machine

Use e-mail systems

Use Internet communications services

Use videoconference facilities

BIL: Recommended

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| EDU: | 12 | AD | AC |
| | P | R | C,M |

Competency: Perform scheduling functions #

Competency Builders:

Create calendar/schedule

Maintain and use appointment calendars with accurate addresses and phone numbers

Process requests for appointments

Verify appointments

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage records #

Competency Builders:

Implement filing system

Implement retention system

Perform electronic filing operations

Maintain inventory records

Retrieve files

Unit: Economic and Business Principles

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | M,C |

Competency: Describe basic economic concepts # *

Competency Builders:

Identify importance of economic resources

Explain concept of economic resources

Explain importance of economic resources

Explain concept of economic goods and services

Differentiate between economic goods and services

Differentiate between needs and wants

Explain concept of supply and demand

Explain concept of price

Explain how supply, demand, and price are related

Explain concept of private enterprise and business ownership

Explain concept of profit

Explain concept of risk

Explain concept of competition

Explain relationship among risk, competition, and profit

Describe global economic and world markets

Describe economic cycles (e.g., unemployment, recession, inflation, budget deficits)

Describe economic arena's effect on business (e.g., financial, competitor indicators, industry)

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Describe economic systems # *

Competency Builders:

Describe free enterprise system

Describe relationship between government and business

Describe relationship between labor and management

Compare types of economic systems

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Understand income statement data # *

Competency Builders:

- Identify revenue
- Identify overhead expenses
- Identify fixed expenses
- Identify direct labor
- Identify indirect labor
- Identify direct and indirect materials
- Identify general and administrative expenses
- Identify selling expenses
- Identify net income

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Understand income statement data # *

Competency Builders:

Identify revenue

Identify overhead expenses

Identify fixed expenses

Identify direct labor

Identify indirect labor

Identify direct and indirect materials

Identify general and administrative expenses

Identify selling expenses

Identify net income

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Explain equipment depreciation *

Competency Builders:

Explain straight line

Explain sum of year's digits

Explain declining balance

Explain IRS strategies

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Identify cost and profit influences *

Competency Builders:

Explain importance of loss prevention

Explain importance of maximizing quality

Explain importance of maximizing productivity

Differentiate between specialized training and cross training

Explain labor, management, and government influences on cost/profit

Explain cost/profit influences of retraining

Define impact of seasonal business cycles

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Describe economic indicators and trends # A *

Competency Builders:

Define gross national product and gross domestic product

Define national debt

Define impact of interest rates

Define impact of government spending

Define impact of seasonal business cycles

Define impact of inflation, growth, recession, and unemployment

Define impact of national and world events

Define impact of the growth of international trade

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Explain international trade *

Competency Builders:

Describe nature and importance of international trade

Explain marketing in international trade

Explain balance of trade concepts

Describe impact of foreign investment

Describe the influence of national debt

Describe the effect of currency exchange rates on international trade

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain basic business concepts *

Competency Builders:

- Identify functions of business
- Explain role of management
- Explain role of labor
- Explain concept of service as a product
- Explain role of administration
- Explain role of operations
- Identify role of company objectives
- Identify importance of ethical business practices
- Identify types of ownership
- Identify components of a business plan
- Calculate break even and payback
- Explain role of depreciation in business decisions
- Explain role of capital gains
- Describe business reporting and information flow
- Map interface of departmental functions
- Describe business communication channels (e.g., formal, informal)
- Explain basic total quality management (TQM/ISO) principles
- Explain the effects of bankruptcy

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain legal concepts *

Competency Builders:

Define legal terminology

Explain business law concepts

Identify contracts and/or legal documents

Explain relationship of laws and regulations to company contracts, policies, and procedures

Identify laws relating to working conditions, wages and hours, civil rights, social security, disability, unemployment insurance, and exempt vs. nonexempt

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C,M |

Competency: Explain role of marketing # *

Competency Builders:

Identify aspects of sound business image

Explain purposes of marketing

Describe functions of marketing

Describe effects of marketing

Identify target markets

Define sales potential

Explain pricing strategies

Differentiate among advertising campaigns

Explain functions of advertising agencies

Describe sales incentive programs

Differentiate among types of marketing strategies (e.g., phone, mail, person)

Unit: Basic Computer Concepts and Applications

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C,S |

Competency: Describe personal computer operations # *

Competency Builders:

Explain how data is stored in main computer memory

Explain how computer system executes program instruction

Explain computer storage capacity

Explain how data is represented

Describe data storage devices

Identify types of memory

Describe back-up and archival disciplines

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Explain information processing cycle *

Competency Builders:

Describe computer languages and their use (e.g., machine, postscript, proprietary, graphic description)

Describe difference between data files and program files

Explain PC/Mac layout

Explain PC/Mac network layout

Explain mini/mainframe network layout

Differentiate among hardware, software, and firmware

Differentiate between open from proprietary architecture

Explain upload/download

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Explain operating systems # *

Competency Builders:

Identify operating systems and their attributes (e.g., DOS, Unix, Macintosh, Windows)

Describe compatibility issues

Identify cross-platform file conversion tools

Describe how commands handle tasks in operating systems

Describe various input/output systems

Describe the purpose of operating system utilities

Differentiate between a compiler and an interpreter

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Demonstrate basic computer literacy # *

Competency Builders:

Create directories/folders and sub-directories

Format disks

Manipulate files (e.g., copy, rename, delete)

Keyboard proficiently by touch

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Operate computer hardware # *

Competency Builders:

Practice proper media handling techniques (e.g., magnetic fields, dust, liquids)

Identify hardware and its use

Use hardware (e.g., printers, modems, touch screen, digitizers, plotters, graphic tablets, scanners, film recorders, video, laser image setters)

Demonstrate basic care of hardware

Explain need for and application of security levels/procedures

Perform basic hardware troubleshooting

Explain hardware addressing techniques

Maintain usage and maintenance logs

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Explain operation of peripheral devices # *

Competency Builders:

- Identify peripherals and operating requirements of each
- Identify primary devices used for personal computer auxiliary storage
- Describe how data is stored on diskettes and hard drives
- List speed and storage capacities of computer auxiliary storage devices
- Describe attributes of diskettes and hard disks regarding speed and storage capacity
- List types of disk storage used with large computer systems
- Define role of tape storage in relation to personal and large computers
- Describe security issues related to peripheral devices
- Explain purpose of input devices (e.g., keyboard, mouse, scanners, pens, bar code readers, credit/debit/smart cards, voice, video, gloves)
- Describe operation of output devices (e.g., voice, speaker output devices, printers, plotters, printer sharing units, SCSI interface, video display)
- Describe operation of multimedia (e.g., video, audiosound)
- Describe operation of storage devices (e.g., tape, disk, CD-ROM)

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | |

Competency: Operate peripheral devices # *

Competency Builders:

- Use appropriate reference materials
- Load media devices
- Start media devices
- Unload media devices
- Import, edit, and export video and audio
- Set up print devices
- Operate scanner devices
- Operate print devices
- Maintain print devices
- Monitor peripheral equipment operations
- Perform routine maintenance on peripheral devices
- List appropriate control procedures
- Transmit via modem
- Receive via modem
- Search a CD-ROM library
- Print information from a CD-ROM library
- Describe device driver

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Store media # *

Competency Builders:

Identify need for data library

Retrieve stored media (e.g., on-line, off-line, permanent, off-site)

File stored media (e.g., on-line, off-line, permanent, off-site)

Initialize media

Catalog media

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Explain software applications # *

Competency Builders:

Define software types and functions

Describe need for application software

Describe different types of software applications

Explain advantages and disadvantages of integrated and dedicated software

Differentiate features between like applications

List software sources

Explain software copyright laws

Explain data compression techniques

Explain use of passwords/security

Explain desktop productivity tools

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Use word processing packages # *

Competency Builders:

- Define word processing terminology
- Explain functions of word processing software
- Explain word processing applications
- Use appropriate reference materials including on-line help
- Keyboard efficiently by touch
- Use mouse
- Initialize diskette
- Prepare backup file
- Maintain backup file
- Update spelling dictionary and spell check
- Perform document functions (e.g., locate, rename, delete, save, retrieve, copy)
- Perform formatting functions (e.g., center, underline, bold, cut and paste)
- Perform redlining functions
- Use edit features
- Use sort features
- Add page numbers to document
- Add headers and footers
- Print files, pages, screens and blocks of text
- Verify accuracy of output
- Create a document
- Save a document to disk
- Retrieve a document from disk
- Edit an existing document
- Describe word-wrap
- Print a document
- Store boilerplate material (e.g., templates, stationary files)

Compose documents at keyboard
Tabulate multiple columns
Prepare new documents from existing ones
Merge selected copy with new information
Prepare various types of table options
Format text
Integrate database, spreadsheet and graphic files
Convert documents from one system/version to another
Demonstrate use of computer thesaurus
Use multimedia techniques/resources
Perform merge functions

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Use spreadsheet packages # *

Competency Builders:

Define spreadsheet

Explain basic spreadsheet terminology

Define components of spreadsheets

Describe implementation of spreadsheet operations in business scope

Use mouse

Use spell check

Execute an electronic spreadsheet

Enter data, formulas, and functions

Differentiate between labels and numbers

Speculate using "what if . . ." questions

Sequence keystrokes in the creation of a macro

Create database within spreadsheet

Perform data query functions

Move around in spreadsheet and correct errors

Create links to other files

Format spreadsheet

Create graphs

Print graphs

Save previously saved files

Load previously saved files

Replicate cells using copy commands

Use electronic spreadsheet to complete business application

Use spreadsheet to plan financial strategies

Prepare spreadsheet

Use multimedia techniques/resources

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Use databases # *

Competency Builders:

- Define database
- Explain terms used in database systems
- Describe common functions of database systems
- Use database to design, create, input, edit, and display fields and records
- Analyze structure of database files
- Perform calculations with a database file
- Alter structure of database file
- Sort records based on multiple fields
- Identify advanced database technology
- Use appropriate reference materials
- Utilize relational database
- Enter elements into database
- Proofread database
- Explain database
- Design report formats
- Import/export data from alternate file formats
- Transfer data to and from remote database
- Link data to and from remote database
- Print reports using data from multiple databases
- Use database files with other application software
- Verify accuracy of output (e.g., edit reports)
- Query databases

BIL: Essential

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Competency: Use graphic user interface (GUI) techniques # *

Competency Builders:

Describe a variety of computer interfaces

Explain multi-tasking environment

Use general navigational skills

Use cut and paste functions

BIL: Essential

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Competency: Manage software packages # *

Competency Builders:

Install software packages

Upgrade software packages

Document installation and upgrade of software packages

Apply security levels/procedures to sensitive data

Manage software preferences

Manage software conflicts

Identify system requirements

Identify licensing issues

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Maintain computer security requirements # *

Competency Builders:

Apply business ethics

Follow security rules, regulations, and codes

Implement security procedures

Document security procedures

Perform security audits

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Maintain personal computer systems # *

Competency Builders:

- Monitor system status and performance
- Run diagnostics, utilities, and anti-virus
- Report computer system malfunction(s)
- Report software malfunction(s)
- Identify corrupted files and recovery procedures
- Maintain security
- Maintain hardware/software inventory
- Perform backup procedure(s)
- Perform preventive maintenance
- Demonstrate file management techniques
- Follow log-off and power-down procedure(s)
- Follow equipment maintenance procedures
- Follow quality control procedures

BILL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate basic knowledge of networks # *

Competency Builders:

Explain communications standards

Describe network structures

Explain network types and protocols

Explain network connectivity

Explain the function of servers in a graphic network

Describe various network operating systems

Explain the difference between network software and individual use software

Use a network to access, file, and store files

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Use a shared environment # *

Competency Builders:

- List purposes of a network environment
- Define electronic mail
- Identify advantages and disadvantages of electronic mail
- Describe impact of local and wide area networks on mail delivery
- Compose electronic messages
- Send electronic messages using appropriate format
- List categories of electronic mail service
- Transmit document using electronic mail system
- Use collaboration tools
- Monitor electronic mail
- Use networked environments
- Search database for properties of materials
- Conduct literature searches using a variety of on-line tools
- Explain access, security, transmission and retrieval

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of the Internet/Intranet *

Competency Builders:

Define the Internet/Intranet

Explain how the Internet/Intranet works

Explain Internet/Intranet capabilities and limitations

Explain how to connect to the Internet/Intranet via modem, ISDN, etc.

Install Internet/Intranet software

Navigate the World Wide Web

Identify services and tools offered on the Internet/Intranet

Explain bookmarks

Describe security issues

Describe ethical use of the Internet/Intranet

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Use the Internet/Intranet*

Competency Builders:

Define how the Internet can be used for research

Use services and tools offered on the Internet for research

Identify search engines

Use search engines

Evaluate Internet resources and accuracy of information

Access library catalogs on the Internet

Access commercial and government resources

Download files

Use other Internet/Intranet tools and services

Unit: Technical Documentation

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate proficiency in technical documentation *

Competency Builders:

Determine audience

Identify parameters

Observe progress

Ask questions

Interpret specifications or drawings for target audience

Record process (e.g., flowchart, step-by-step)

Record data

Maintain test logs

Compile cumulative reference/record

Measure appropriate parameters

Verify accuracy and validity

Draft procedures

Maintain appropriate logs

Track expenses involved

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M, S, C |

Competency: Demonstrate proficiency in technical reporting *

Competency Builders:

Determine audience

Use data books and cross reference/technical manuals

Identify type of report needed

Compile relevant data

Design applicable charts and graphs

Analyze data

Draw conclusions

Outline reports

Write reports

Present reports

Unit: Customer Relations

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Demonstrate positive relations with customers/clients

Competency Builders:

Identify importance of (“customers/clients”) to business

Demonstrate prompt and courteous service

Assess customer inquiries

Resolve customer inquiries and complaints and/or refer customer/client to appropriate person (“promptly”)

Identify methods of addressing dissatisfied customers/clients

Develop customer/client background file for reference

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Perform scheduling functions to meet customers needs

Competency Builders:

Create calendar/schedule

Maintain appointment calendars

Process requests for appointments

Verify appointments

Notify customer of changes in schedule

Identify scheduling conflicts

Document results

Unit: General Office Functions

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | |

Competency: Maintain work flow

Competency Builders:

Organize and prioritize work

Apply time-management techniques

Complete assigned tasks accurately in a timely manner

Coordinate with team members as needed

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Maintain office supplies

Competency Builders:

- Prepare vendor and product comparison for purchasing supplies
- Process appropriate paper work (e.g., purchase order, purchase requisition)
- Order supplies
- Store and secure supplies
- Distribute supplies
- Develop inventory control system
- Develop vendor list with phone number and order information

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | C |

Competency: Assist visitors

Competency Builders:

Greet visitors

Screen visitors

Maintain visitor log

Make appropriate introductions

Portray professional image

Identify emergency and facility exits, restrooms, etc.

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Perform scheduling functions

Competency Builders:

Create calendar/schedule

Maintain appointment calendars with accurate addresses and telephone numbers

Process requests for appointments

Verify appointments

Schedule necessary room and equipment

Maintain duplicate appointment calendars

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | |

Competency: Maintain filing system #

Competency Builders:

Justify keeping records

Describe current types of filing systems available (e.g., electronic options)

Identify types of records needed

Develop proper techniques/procedures for maintaining records

Use appropriate reference materials

Describe procedure for initial inventory of records

Organize and index files

File information/materials

Retrieve information/materials

Archive or destroy files

Secure files for legality and confidentiality

Determine and follow retention schedule

Create new files

Update files

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C |

Competency: Coordinate meeting arrangements

Competency Builders:

Make arrangements with meeting planners

Develop agenda

Assemble relevant information

Notify participants

Confirm arrangements

Conduct follow-up activities (e.g., thank you, minutes, results, actions)

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Generate minutes

Competency Builders:

Record appropriate notes

Gather materials

Prepare minutes

Distribute minutes

File minutes

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | |

Competency: Perform copying functions #

Competency Builders:

Operate equipment

Collate documents

Identify copying methods

Determine best copying method for task

Identify characteristics of paper stock

Keep appropriate records

Determine appropriate copyright applications

Perform basic maintenance procedures (e.g., changing paper, eliminating paper jams)

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Perform mail functions

Competency Builders:

Identify various mail and delivery services

Process and distribute incoming mail

Operate equipment

Process outgoing mail

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | C, M |

Competency: Coordinate travel plans #

Competency Builders:

Check travel resources

Identify traveler's preferences

Arrange necessary transportation and lodging

Obtain passports and/or visas

Confirm arrangements

Prepare itineraries

Distribute itineraries

Develop traveler's preference profile (e.g., file of frequent traveler's preferences)

Make arrangements for international travel

Unit: General Accounting Functions

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M |

Competency: Apply arithmetical skills to accounting

Competency Builders:

Compute discounts for various terms (e.g., cash, trade)

Compute extension, sales tax, and totals of sales slips

Compute markups and markdowns

Calculate rates of trade and cash discounts

Calculate unit prices given quantity prices

Calculate costs of portions of units

Solve problems involving fractions, decimals, and percentages

Solve commission problems

Solve finance-charge problems

Solve annual percentage rate problems

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Apply accounting principles

Competency Builders:

- Define accounting terminology
- Define journals and ledgers
- Identify basic accounting principles and applications
- Identify computer accounting applications
- Identify financial control procedures
- Explain increases and decreases in accounts
- Explain periodic reporting procedures
- Prepare income statement
- Prepare balance sheet columns
- Prepare cash flow statement
- Prepare change in equity statement
- Interpret balance sheets
- Interpret income statements

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Perform manual accounting functions

Competency Builders:

Explain use of record keeping in relation to business and economic applications

Analyze transactions

Use "T" accounts to label increases, decreases, and balances

Record transactions

Monitor expense accounts

Prepare budgets

Process purchases

Prepare comparative (actual vs. budget) income statement

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Perform automated accounting functions

Competency Builders:

Key data on numeric keyboard

Import or download data from computer records

Retrieve data from various media

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Perform payroll functions

Competency Builders:

Use appropriate reference materials and online help

Collect payroll data

Process payroll

Comply with company policies and procedures

Comply with government and legal requirements

Maintain records and forms

Print and distribute payroll according to company policy

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M |

Competency: Perform banking functions

Competency Builders:

- Use appropriate reference materials
- Prepare checks, deposit slips, and withdrawal slips
- Maintain checkbook
- Balance checkbook
- Maintain petty cash
- Explain automated banking transactions
- Prepare banking records
- Maintain banking records
- Explain importance of maintaining banking records
- Reconcile bank accounts
- Prepare bank reconciliation

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Process cost accounting information

Competency Builders:

Define cost accounting, direct materials, direct labor and overhead

Define cost allocation methods

Identify source documents

Compute direct materials by job or process

Compute overhead rates to apply to jobs or processes

Compute cost of goods produced

Journalize cost of goods produced and sold entries

Post cost of goods produced and sold entries

Compute cost of inventories

Prepare cost production reports

Prepare related records of job or process costs

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process end-of-fiscal-period information

Competency Builders:

- Prepare worksheet
- Prepare trial balance
- Foot ledger accounts and compute balances
- Prove equality of debits and credits
- Locate errors
- Record adjustments
- Make appropriate extensions
- Journalize basic adjusting, closing, and reversing entries
- Post basic adjusting, closing, and reversing entries
- Prepare basic income statement
- Prepare basic balance sheet
- Prepare basic cash flow statement
- Prepare changes in equity statement

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Use microcomputers in accounting

Competency Builders:

Use integrated software package for simulation of accounting cycle

Set up chart of accounts for general ledger

Set up accounts payable and accounts receivable ledgers

Add accounts to general and subsidiary ledgers

Delete accounts to general and subsidiary ledgers

Input account balances

Enter journal transactions

Process journal transactions

Prepare trial balance

Verify data and correct errors

Generate reports

Unit: Specialized Accounting Functions

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | M |

Competency: Process purchase orders # *

Competency Builders:

Identify source documents

Verify purchase requisitions

Prepare purchase orders and related documents/records

Prepare receiving reports

Interpret purchase orders

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process purchase invoices # *

Competency Builders:

Verify invoices against purchase orders and receiving reports

Check invoice calculations

Journalize purchase invoice entries

Post purchase invoice entries

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process purchase returns and allowances # *

Competency Builders:

Verify return of goods

Issue debit memoranda

Journalize purchase returns and allowance entries

Post purchase return and allowance entries

Adjust secondary records

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process accounts payable # *

Competency Builders:

Identify source documents

Journalize payable entries

Post payable entries

Maintain subsidiary records

Reconcile subsidiary records to accounts payable

Prepare schedule of accounts payable

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M |

Competency: Process purchase payables and payments # *

Competency Builders:

Verify invoices, vouchers, and/or interoffice memorandums for payment

Calculate purchase discounts

Prepare checks or electronic transfers

Mark source documents paid

Journalize payment entries

Post payment entries

Adjust subsidiary records

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process notes, interest payable, and receivable # *

Competency Builders:

Identify source documents

Identify appropriate entries for notes payable

Compute payment of notes payable and interest

Record payment of notes payable and interest

Apply present value concepts

Journalize note payables entries

Post note payables entries

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process invoices and receivables # *

Competency Builders:

Define financial control procedures

Identify source documents

Verify sales invoices

Journalize sales invoice entries

Post sales invoice entries

Maintain subsidiary records

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process sales returns and allowances # *

Competency Builders:

Verify sales returns and allowances

Prepare credit memorandums

Journalize sales returns and allowance entries

Post sales return and allowance entries

Adjust subsidiary records

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process uncollectible accounts # *

Competency Builders:

Prepare schedule of aged accounts receivable

Apply company policies and procedures to determine uncollectibles

Prepare related documents

Journalize uncollectible account entries

Post uncollectible account entries

Adjust subsidiary records

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process collections # *

Competency Builders:

Determine due dates for various discount terms

Compare receipts with amount due

Verify checks, money orders, credit card receipts, and cash

Prepare cash proofs

Prepare deposits

Verify sales discounts

Prepare related documents

Journalize receipt entries

Post receipt entries

Adjust subsidiary records

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process notes and interest receivables # *

Competency Builders:

Identify source documents

Identify appropriate entries for notes receivable

Compute and record principal and interest of notes receivable entries

Journalize notes receivable entries

Post notes receivable entries

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M |

Competency: Perform checking account functions # *

Competency Builders:

Issue checks

Keep check records

Journalize entries

Post entries

Reconcile bank statement

File checks and deposit slips

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Maintain petty cash fund #

Competency Builders:

Set up petty cash fund

Pay petty cash vouchers

Reconcile petty cash fund

Replenish petty cash fund

Journalize petty cash transaction entries

Post petty cash transaction entries

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M |

Competency: Process payroll # *

Competency Builders:

Calculate regular and overtime hours

Compute gross earnings

Compute deductions

Compute net pay

Prepare voucher checks

Prepare payroll checks

Journalize payroll entries

Post payroll and deduction entries

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | M |

Competency: Process employer payroll taxes # *

Competency Builders:

Apply payroll laws and regulations

Prepare required tax deposits/payments

Prepare payroll tax returns as required

Prepare employee tax forms and reports as required

Journalize employer's payroll tax entries

Post employer's payroll tax entries

Post recorded liability for payroll tax entries

Post withholding and payroll taxes

Describe magnetic media reports (e.g., W-2's, bonds, Medicare)

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Process accruals and deferrals #A*

Competency Builders:

Define accruals and deferrals

Calculate amounts to be accrued and deferred

Journalize accrued and deferred liability and revenue entries

Post accrued and deferred liability and revenue entries

Journalize reversing entries as required

Post reversing entries

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Provide financial statements for internal use #A*

Competency Builders:

Prepare balance sheet

Prepare income statement

Prepare cash-flow analysis

Prepare break-even analysis

Prepare budgets

Prepare comparative financial statement

Prepare cost and revenue analysis

Interpret financial statements

Prepare cash-flow statement

Explain cash-flow analysis statements

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Update value of plant and equipment assets #A

Competency Builders:

Differentiate between revenue and capital expenditures

Define depreciation methods

Calculate depreciation

Journalize plant and equipment asset entries

Post plant and equipment asset entries

Journalize depreciation entries

Post depreciation entries

Record disposition of plant assets by selling, discarding, and trading

Post disposal of plant and equipment asset entries

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Process cost accounting information #A*

Competency Builders:

Compute direct materials by job or process

Compute direct labor by job or process

Compute overhead rates to apply to jobs or process (e.g., % of labor)

Prepare cost production reports

Prepare related records of job or process costs

Define transfer pricing (e.g., interplant transfers)

Compute inventory balance of inventory turns

Prepare variance analysis (e.g., purchase price variance, materials price variance)

Unit: Financial Management Functions

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | M |

Competency: Apply accounting principles

Competency Builders:

- Define accounting terminology
- Define journals and ledgers
- Identify basic accounting principles and applications
- Identify computer accounting applications
- Identify financial control procedures
- Explain increases and decreases in accounts
- Explain periodic reporting procedures
- Prepare income statement
- Prepare balance sheet columns
- Prepare cash flow statement
- Prepare change in equity statement
- Interpret balance sheets
- Interpret income statements

BIL: Essential

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| EDU: | 12 | AD | AC |
| | I | P | M |

Competency: Provide financial statements to make personal decisions

Competency Builders:

Prepare balance sheet

Prepare income statement

Prepare cash-flow analysis

Prepare break-even analysis

Prepare budgets

Prepare comparative financial statements

Prepare cost and revenue analysis

Interpret financial statements

Prepare cash-flow analysis statements

Interpret cash-flow analysis statements

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Analyze cultural demographics of major world regions

Competency Builders:

Compare the major cultural groups of the United States and another country

Compare the major cultural groups of two other countries

Compare cultural groups within a country

Identify major cultural groups of East Asia

Identify major cultural groups of the Asian Sub-continent

Identify major cultural groups of the Middle East

Identify major cultural groups of Sub-Saharan Africa

Identify cultural groups of Eastern Europe

Identify cultural groups of Western Europe

Identify major cultural groups of Latin America

BIL: Essential

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| EDU: | 12 | AD | AC |
| | | P | C |

Competency: Analyze the impact of cultural environment on business

Competency Builders:

Identify social and cultural sectors that affect the conduct of business

Compare and contrast business practices in different cultures

Illustrate how culture influences business operations

Identify United States cultural attitudes and practices that could inhibit successful business operations in another country

Analyze necessary modifications to American business practices for success in the global marketplace

Describe the steps to receive business visitors from specific countries

Describe negotiation tactics and decision-making processes of various cultures

Identify types of business relationships in various cultures

Compare business entertainment among people in various parts of the world

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Describe customs that impact international business

Competency Builders:

Identify cultural differences in food, dress, and social behaviors

Compare the use of calendars in different societies

Identify major holidays of various cultures and how they are celebrated

Assess the importance of gift giving in various cultures

BIL: Essential

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Competency: Demonstrate knowledge of estates, trusts, and wills

Competency Builders:

Explain information needed to administer an estate

Identify legal procedures of Testamentary Letters and Letters of Administration through probate

Demonstrate other legal procedures pertinent to estates

Explain court documents commonly filed in connection with estate administration

Identify tax returns for an estate

Explain differences and types of wills and trusts

Explain the differences between testate and intestate

BIL: Essential

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Competency: Describe investment instruments

Competency Builders:

Define terminology related to investments (e.g., principal, maturity)

Describe certificates of deposit (CD's)

Describe money market funds/accounts

Describe mutual funds

Describe treasury bills

Describe treasure notes and bonds

BIL: Essential

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Competency: Perform banking functions

Competency Builders:

Use appropriate reference materials

Prepare checks, deposit slips, and withdrawal slips

Maintain checkbook

Balance checkbook

Maintain petty cash

Explain automated banking transactions

Prepare banking records

Maintain banking records

Explain importance of maintaining banking records

Reconcile bank accounts

Prepare bank reconciliation

BIL: Essential

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Competency: Execute financial planning functions

Competency Builders:

- Identify risk management principles
- Apply investment principles
- Review estate plans
- Prepare cash flow/income tax analysis
- Review employee benefits
- Develop retirement plans

Unit: Business Law

BIL: Essential

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Competency: Illustrate legal concepts # *

Competency Builders:

Define basic legal terminology

Explain basic business law concepts

Describe contracts and/or legal documents

Explain basic relationship of laws and regulations to company contracts, policies, and procedures

Explain basic laws relating to working conditions, wages and hours, civil rights, social security, disability, and unemployment

BIL: Essential

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Competency: Explain legal rights and responsibilities *

Competency Builders:

Describe different types of laws

Identify rules of law affecting minors

Describe basic differences between crimes and torts

Describe basic differences between criminal and civil law

Describe basic differences between state and federal court systems

Describe court system and how a case goes to trial

Explain the right to appeal

BIL: Recommended

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Competency: Demonstrate knowledge of labor law # *

Competency Builders:

Describe rights and responsibilities of parties to an employment contract

Identify state and federal laws dealing with employment

Identify protections available to employees

Describe the role of unions in business

BIL: Recommended

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Competency: Demonstrate knowledge of environmental law *

Competency Builders:

Identify environmental agencies and regulations

Use applicable reference materials

Explain reporting procedures for violations to appropriate agencies

BIL: Recommended

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Competency: Demonstrate knowledge of contract law # *

Competency Builders:

Analyze elements of a contract for validity

Explain different types of contracts (e.g., oral, written, implied)

Differentiate between contracts that are transferable and contracts that are non-transferable

Identify means of discharging contracts

Describe means of discharging contracts

Describe remedies available for a breach of contract

BIL: Essential

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Competency: Demonstrate knowledge of corporation law *

Competency Builders:

Explain the different types of business structures (e.g., sole proprietorship, general partnership, limited partnership, corporation including subchapter S)

Describe how to form a corporation

Describe the difference between equity and debt securities

Identify the principle/agent relationship and the basic terms of employment agreements

Identify special forms of corporations

Name corporation purpose and structure

BIL: Essential

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Competency: Demonstrate knowledge of consumer law *

Competency Builders:

Describe types of negotiable instruments

Describe laws related to buying on credit

Explain negotiable instruments

Identify factors to consider when borrowing money

Describe laws that apply to the collection of negotiable instruments

Identify regulatory agencies (e.g., FDIC, FTC)

Explain retirement plans (e.g., IRAs, 401Ks)

BIL: Recommended

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Competency: Demonstrate knowledge of real estate law *

Competency Builders:

Distinguish between real and personal property

Describe legal documents relating to residential transactions

Explain a residential real estate settlement procedure

Describe title insurance and financing documents

Identify various documents relating to the sale of commercial property

Explain a commercial real estate settlement

BIL: Essential

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Competency: Demonstrate knowledge of tax law

Competency Builders:

Identify local, state and federal laws dealing with taxes

Use applicable reference materials

Explain penalties for noncompliance with local, state, and federal tax laws

BIL: Recommended

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Competency: Demonstrate knowledge of estates, trusts and wills *

Competency Builders:

Explain information needed to administer an estate

Identify legal procedure of testamentary letters and Letters of Administration through probate

Demonstrate other legal procedures pertinent to estates

Explain court documents commonly filed in connection with estate administration

Identify tax returns for an estate

Explain differences and types of wills and trusts

Explain the differences between testate and intestate

Unit: Legal Office Procedures

BIL: Essential

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Competency: Demonstrate proficiency in legal terminology *

Competency Builders:

Identify correct legal terms

Define and spell legal terms

Differentiate among types of legal documents such as pleadings, contracts, and forms that include deeds, wills, mortgages, etc.

Edit legal correspondence for accuracy of content

Identify procedures for maintaining confidentiality of client information

Display knowledge of the ABA code of ethics

BIL: Essential

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Competency: Demonstrate proficiency in production of legal documents

Competency Builders:

Gather initial intake information from clients

Explain the difference between various sources of legal authority such as statutes, cases, and administrative codes

Prepare table of contents and table of authorities

Process legal documents with minimum or no instruction (e.g., pleadings, contracts, agreements, wills, trusts, real estate)

BIL: Essential

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Competency: Maintain diary/docket system

Competency Builders:

File documents, using various legal filing system

Prepare records for new clients

Maintain forms file

Control calendar and scheduling

Docket management

Maintain case file for trial/hearing/conference or settlement

BIL: Essential

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Competency: Demonstrate proficiency in litigation

Competency Builders:

Explain basic steps in the conduct of civil lawsuit and criminal proceedings from pleadings through appeal

Explain discovery tools used to obtain relevant information

Draft commonly used court documents

Draft digests of deposition transcripts and other forms of recorded testimony

Prepare pleadings in proper form

Draft written discovery requests designed to elicit specific relevant information (e.g., notices, subpoenas)

Explain basic legal principles of torts vs. crimes, contracts, real property, etc.

Define statutes of limitations for various areas of law

BIL: Essential

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Competency: Demonstrate proficiency in keyboarding/transcription skills

Competency Builders:

Demonstrate appropriate keyboarding skills (e.g., 70 wpm)

Demonstrate transcription skills

Unit: Legal Concepts

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Illustrate legal concepts # *

Competency Builders:

Define legal terminology

Explain business law concepts

Interpret contract and/or legal documents

Explain relationship of laws and regulations to company contracts, policies, and procedures

Explain laws relating to working conditions, wages and hours, civil rights, social security, disability, and unemployment

BIL: Essential

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Competency: Explain legal rights and responsibilities *

Competency Builders:

Describe different types of laws

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Describe court system and how a case goes to trial

Explain the right to appeal

BIL: Essential

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Competency: Demonstrate knowledge of labor law # *

Competency Builders:

Describe rights and responsibilities of parties to an employment contract

Identify state and federal laws dealing with employment

Identify protections available to employees

Describe the role of unions in business

BIL: Essential

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Competency: Demonstrate knowledge of environmental law *

Competency Builders:

Identify environmental agencies and regulations

Use applicable reference materials

Explain reporting procedures for violations to appropriate agencies

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of contract law # *

Competency Builders:

Analyze elements of a contract for validity

Explain different types of contracts (e.g., oral, written, implied)

Differentiate between contracts that are transferable and contracts that are non-transferable

Identify means of discharging contracts

Describe means of discharging contracts

Describe remedies available for a breach of contract

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of corporation law *

Competency Builders:

Explain the different types of business structures (e.g., sole proprietorship, general partnership, limited partnership, corporation including subchapter S and limited liability corporation)

Describe how to form a corporation

Describe the difference between equity and debt securities

Identify the principle/agent relationship and the basic terms of employment agreements

Identify special forms of corporations

Name corporation purpose and structure

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of consumer law *

Competency Builders:

Describe types of negotiable instruments

Describe laws related to buying on credit

Explain negotiable instruments

Identify factors to consider when borrowing money

Describe laws that apply to the collection of negotiable instruments

Identify regulatory agencies (e.g., FDIC, FTC)

Explain retirement plans (e.g., IRAs, 401Ks)

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of real estate law *

Competency Builders:

Distinguish between real and personal property

Describe legal documents relating to residential transactions

Explain a residential real estate settlement procedure

Describe title insurance and financing documents

Identify various documents relating to the sale of commercial property

Explain a commercial real estate settlement

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of tax law

Competency Builders:

Identify local, state and federal laws dealing with taxes

Use applicable reference materials

Explain penalties for noncompliance with local, state, and federal tax laws

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of estates, trusts and wills *

Competency Builders:

Explain information needed to administer an estate

Identify legal procedure of testamentary letters and Letters of Administration through probate

Demonstrate other legal procedures pertinent to estates

Explain court documents commonly filed in connection with estate administration

Identify tax returns for an estate

Explain differences and types of wills, trusts and POA's

Explain the differences between testate and intestate

Unit: Computer User Support

BIL: Essential

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Competency: Provide user support and training

Competency Builders:

- Operate help desk
- Utilize desktop productivity tools
- Support computer users
- Train computer users
- Manage user accounts

Unit: Data Warehousing

BIL: Recommended

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Competency: Describe basic data warehousing concepts *

Competency Builders:

Differentiate between traditional databases and data warehouses

Describe importance of data warehouses and integration

Define components of data warehouses: subject-oriented, integrated, time-variant, non-volatile

Explain and define types of information: associations, sequences, classifications, clusters, and forecasting

Explain data conversion

Identify types of programs and applications for data warehousing

Explain the four types of tools for data mining: neural networks, decision trees, rule induction, and data visualization

Define public summary data

BIL: Recommended

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Competency: Explain ethical behaviors related to data warehousing *

Competency Builders:

Describe appropriate security measures

Define use of permanent detail data for legal or ethical use

Explain the limitations of external data .

Explain ethical use of data

BIL: Recommended

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Competency: Perform data entry and update *

Competency Builders:

Identify and use appropriate index or indices

Explain data repositories

Apply appropriate security measures

Differentiate between permanent detail data and regular data

Exhibit skill in data programs

Manage databases

BIL: Recommended

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Competency: Perform data retrieval *

Competency Builders:

- Locate appropriate data warehouses
- Secure necessary indices
- Design reasonable query
- Explain nature of application
- Apply appropriate security measures
- Obtain necessary responses from data query
- Verify accuracy of information

BIL: Recommended

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Competency: Apply data *

Competency Builders:

Evaluate information gathered in query

Utilize public summary data

Design reporting medium

Construct report from data gathered

Unit: Software Methodology

BIL: Essential

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Competency: Explain fundamental software methodology

Competency Builders:

Identify basic concepts of algorithm development and programming

Complete project (given formal specifications) requiring incorporation of control structures

Explain principles of program design (e.g., structure, object oriented, event driven)

Describe different data types (e.g., numeric, alphanumeric)

Explain software design process (e.g., specification through implementation and testing)

Resolve issues of program implementation (e.g., debug, documentation, audit)

BIL: Essential

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Competency: Describe concepts used to design software systems *

Competency Builders:

Explain modular design and programming, including specifications and design tools

Explain module implementation (e.g., subroutine)

Explain module testing

Explain module documentation

Explain module maintenance

Explain data normalization

Explain computer-aided software engineering (CASE)

Explain object-oriented programming (OOP)

BIL: Essential

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Competency: Develop software requirements *

Competency Builders:

Use interviewing strategies to gather information

Describe different system design models (e.g., client server, centralized)

Identify system requirements

Develop informal specifications

Develop formal specifications

Develop documentation

Describe computing standards and methodologies

Describe security measures

BIL: Essential

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Competency: Use data modeling techniques

Competency Builders:

Define data modeling

Explain terms used in data models

Use data to create models

Analyze data models

Perform data normalization

Unit: Operating Systems

BIL: Essential

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Competency: Describe operating systems # *

Competency Builders:

Describe microcomputer operating systems

Describe minicomputer operating systems

Describe mainframe operating systems

Describe network operating systems

Describe how commands handle tasks in operating systems

Describe the purpose of operating system utilities

Differentiate between a compiler and an interpreter

Describe the processing that occurs when an interpreter is used

Describe the processing that occurs when a compiler is used

Define interface theory

BIL: Essential

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Competency: Explain central processing unit (CPU) control # *

Competency Builders:

Explain CPU processes

Explain CPU concurrency

Explain CPU scheduling

Explain CPU multitasking

Explain CPU multiprocessing

BIL: Essential

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Competency: Explain memory management # *

Competency Builders:

Describe memory types for PCs

Describe memory types for mainframes

Describe functions of virtual memory (e.g., paging, segmentation)

Describe memory types for minicomputers

Describe memory types for networks

Describe functions of extended memory

Describe functions of expanded memory

Describe functions of cache memory

Describe the relationship between memory and software applications

BIL: Essential

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Competency: Explain auxiliary storage management # *

Competency Builders:

Explain storage management software

Identify auxiliary storage media

Describe operational characteristics of storage media

Describe storage capacities of storage media

Describe retrieval methods of storage media

Differentiate between files and directories

Differentiate among storage devices (e.g., disk, tape, CD-ROM)

Explain mirroring concepts and RAID concepts

BIL: Essential

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Competency: Explain security issues # *

Competency Builders:

Define backup and recovery

Explain disaster planning

Define authentication (e.g., passwords, access level)

Describe encryption techniques

Describe viruses and protection

BIL: Essential

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Competency: Maintain security requirements # *

Competency Builders:

Implement security procedures

Apply business ethics

Follow security rules, regulations, and codes

Document security procedures

Perform security checks

BIL: Essential

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Competency: Explain disaster recovery and business resumption

Competency Builders:

Identify common backup devices

Explain criteria for selecting a type of backup system (tape)

Explain difference between disaster recovery and business resumption

Site examples of how to avoid common computer system disasters (e.g., UPS, RAID)

Contrast streaming and file-by-file backup systems

Explain process for archiving files

Explain steps of a disaster recovery plan and a business resumption plan

BIL: Essential

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Competency: Operate system # *

Competency Builders:

- Utilize desktop operating skills
- Review automated scheduling software
- Define job, batch, and job step
- Describe data requirements
- Use appropriate reference materials
- Perform power-up and log-on procedures
- Demonstrate basic programming skills
- Use console device to interact with and respond to system messages
- Secure supplies and resources
- Follow processing procedures for each application/job
- Run application/job
- Describe scheduling priority
- Describe transmittal form and transmittal log
- Develop an audit trail
- Handle materials and equipment in a responsible manner

BIL: Essential

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Competency: Maintain system # *

Competency Builders:

- Use appropriate reference materials
- Monitor system status and performance
- Run diagnostics
- Respond to system messages
- Document computer system malfunction(s)
- Document software malfunction(s)
- Fix recoverable problems
- Maintain security
- Maintain computer log
- Perform backup procedure(s)
- Perform preventative maintenance procedures
- Install software packages
- Restore system
- Follow log-off and power-down procedure(s)
- Handle materials and equipment in a responsible manner
- Review automated scheduling software
- Describe scheduling priority

BIL: Recommended

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Competency: Provide support and training

Competency Builders:

Operate help desk

Utilize desktop productivity tools

Support computer users

Train computer users

Unit: Application Programming and Design

BIL: Essential

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Competency: Demonstrate knowledge of computer applications # *

Competency Builders:

Explain hardware component functions

Describe major events in the development of computers

Describe major types of software and their functions

Describe batch processing

Describe interactive processing

Describe event driven and object oriented processing

BIL: Essential

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Competency: Develop computer applications # *

Competency Builders:

Identify development team

Create specs with development team

Divide design specifications into logical blocks (e.g., flowchart, data flow diagram, system flows record and layout)

Identify constraints (e.g., political, financial, time, hardware, systems)

Identify programming language

Identify hardware platform

Identify input and output (I/O) requirements

Prepare logic using program-flow diagram

Define business problem to be solved by the application

Use steps outlined in program development cycle, prototyping, storyboarding, etc.

Maintain project scope

BIL: Essential

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Competency: Demonstrate knowledge of programming theory # *

Competency Builders:

Explain the meaning of “reserved word”

Describe arrays and tables

Explain compilers

Differentiate between system documentation and user documentation

Describe what is meant by top-down design and structured programming

Identify the steps in the program development cycle

Design a decision table for a specified problem

Identify the steps and procedures required to develop test data and test plan

Explain the difference between recursion and iteration

Describe what is meant by data validation

Explain importance of user interface

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Apply programming theory # *

Competency Builders:

Write source code per standards

Use spacing charts to plan program output

Code a modular program

Interpret a simple hierarchy chart

Interpret a simple pseudo code design

Create a flow-chart

Perform program sorts

Demonstrate use of loops

Demonstrate use of logical operators (e.g., AND, OR, NOT)

Code error-handling techniques

Demonstrate use of data files

Identify primary use of programming languages and their weaknesses

Follow commenting and internal documentation standards

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Utilize programming languages # *

Competency Builders:

- Perform character manipulation
- Declare (and initialize) variables
- Modify variables
- Use a function
- Use a library
- Use system calls
- Evaluate series of logical expressions
- Code separate addition, subtraction, multiplication, and division statements
- Declare a one-dimensional array
- Initialize an array
- Generate executable code
- Follow algorithm to produce desired output
- Use functions, including library, user-defined, and sting functions
- Write arithmetic statements
- Write IO statements
- Write internal documentation
- Write sub-routines
- Use conditional statements

BIL: Essential

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Competency: Use operating system # *

Competency Builders:

Apply appropriate development tools

Apply operating system commands

Apply operating system utilities

Apply operating system standards

Explain operating system constraints

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Test programs # *

Competency Builders:

- Perform debugging functions
- Create test data and plan that checks logic and error routines
- Execute program with test data
- Correct execution errors
- Perform unit and integration test
- Analyze test results
- Correct logic errors
- Perform usability tests

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Apply programming skills # *

Competency Builders:

- Develop program using file handling techniques
- Develop intuitive user interfaces
- Develop program using data validation techniques
- Develop interactive process
- Develop menu-driven program
- Develop database program
- Develop program that utilizes a recursive process
- Develop program using copy libraries
- Develop program using system calls
- Develop program using design tool
- Develop program using arrays, both one- and two-dimensional

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Develop documentation # *

Competency Builders:

Explain the need for appropriate documentation

Prepare program documentation

Prepare user documentation

Prepare data-flow diagrams

Update design documentation

Prepare documentation update method

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of the systems design process #A *

Competency Builders:

Identify processing requirements

Describe role of user and management in the development of a computer system

Describe use of data flow diagrams, system flowcharts and display screen layout forms

Conduct interviews

Design system inputs and outputs and processes

Create design documentation

Present system design

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Evaluate system # *

Competency Builders:

Identify evaluation criteria

Develop test plan

Conduct test

Analyze test data

Present results

BIL: Essential

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Competency: Implement system *

Competency Builders:

Identify implementation plan

Present implementation plan

Identify conversion method

Implement system

Train personnel

Identify on-going support requirements

BIL: Essential

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Competency: Conduct systems analysis #A *

Competency Builders:

Identify scope of project

Use company procedural manuals, references, documentation, and standards

Conduct interviews

Define business information requirements

Determine hardware and software needs

Interpret source data, charts, and graphs

Review organizational structure

Interpret existing operating documents and procedures for the system

Observe existing procedures

Document existing procedures

Document possible alternative solutions

Identify processing requirements

Define variables

Design system input/output (I/O) processes

Determine programming language

Create design documentation

Analyze specifications

Prepare logic using program-flow diagram

Present findings and recommendations to users and management (e.g., work plan, project estimate)

BIL: Essential

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Competency: Conduct systems installations #A *

Competency Builders:

Review organizational structure

Interpret existing operating documents and procedures for the system

Design implementation plan

Present implementation plan to users and management

Perform implementation or changeover to new system

Perform post-implementation evaluation of new system

Correct deficiencies

Unit: Network Operations

BIL: Essential

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Competency: Explain communication standards # *

Competency Builders:

Identify the seven layers of the International Organization Standard's Open System Interconnection (OSI)

Describe each OSI layer, including their interconnectivity

Identify software standards for subnet, presentation layers, and file servers

BIL: Essential

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Competency: Describe network structures # *

Competency Builders:

Differentiate topologies (e.g., hierarchical, ring, star)

Differentiate architecture(s)

Describe protocols (e.g., TCP/IP, IPX/SPX)

Describe frame types (e.g., SNA<802.3, 802.5)

Define different types of LANs and WANs

Differentiate between network operating systems and data distribution systems

Identify advantages and disadvantages of various LAN operating systems

Define routers and switches

Explain integration theory

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain network transmission and media # *

Competency Builders:

Explain signals

Explain patterns

Explain error detection and correction

Explain speed of transmission

Explain type and use of media

Explain use of equipment

BIL: Essential

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Competency: Explain network connectivity and inter-operability # *

Competency Builders:

Differentiate between sync and async devices

Describe software used to connect networking devices

Identify type of interoperability (e.g., peer-to-peer, peer-to-host)

Identify problems of mixed vendor network implementation

Describe internet solutions (e.g., FTP, web servers, fire walls)

Describe cabling schemes and alternatives

Identify network topologies

Describe the function/purpose of network interface cards

Describe evaluation techniques of hardware and software

Describe levels at which networking can occur

Identify protocols used for remote interconnecting and when each should be used

List common pitfalls when networking computers

Describe gateways (e.g., mainframe, protocol)

Describe network connectivity devices (e.g., hubs, routers, switches)

BIL: Essential

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Competency: Describe network operating systems # *

Competency Builders:

Identify the purpose(s) of a network operating system

Explain installation procedure for network operating systems

Explain commands needed to use network operating systems

Define criteria used to evaluate network operating systems

BIL: Essential

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Competency: Describe potential networking problems with applications software # *

Competency Builders:

Describe potential hardware compatibility problems

Differentiate between license options (e.g., single-user, multi-user)

Describe necessary precautions included in programs used on networks (e.g., self metering, security keys, required configuration settings)

Describe network areas in which application problems could exist (e.g., memory allocation, file lock settings, resource availability)

BIL: Essential

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Competency: Explain network management #A *

Competency Builders:

List steps in mapping a network

Explain why files must be organized according to owners, users, and privileges

Describe common standards for setting up and naming files

List criteria used to determine if a file should be network accessible

Identify methods to increase performance

Define hierarchical directory

Define the role of a network manager

Explain methods used to segment and balance the network load

Explain methods used to determine how many servers should be used

State reasons for channel and cable bottlenecks and reasons and resolutions for the bottlenecks

BIL: Essential

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Competency: Explain network security # *

Competency Builders:

Explain need for data protection

Explain necessity for network security

Identify levels of network security and reasons for their existence

Describe the functions of account administration that support network security

BIL: Essential

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Competency: Explain media installation procedures # *

Competency Builders:

Explain why documentation and labeling are necessary

Identify methods of properly installing cable

Identify problems associated with cable installation

Describe types of cable, cable connectors, and grounding techniques

Explain cable testing and tolerance levels

Identify sources of interference and include methods to overcome each

BIL: Essential

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Competency: Apply network installation and operations # *

Competency Builders:

Assess user needs to determine which network operating systems to use

Demonstrate applications used on LANs

Describe how the network protocols work together

Operate the system in a multi-user environment

Demonstrate knowledge of various networks and compatibility

Differentiate among various topologies

Build synchronous transmission circuit using a modem

Connect PCs to form a network

Perform file to file copy in a PC network

Implement print queue in a PC network

Configure file server in a PC network

Connect PC to mini or mainframe

Link mixed vendors (e.g., PC to Mac)

Interconnect via backbone network

Build small ethernet or token ring network

Install cabling

Install network

BIL: Essential

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Competency: Administer network #A *

Competency Builders:

- Apply current LAN concepts and technology
- Attach computers and peripherals to LAN
- Change computer hardware
- Set up system configuration
- Install and use LAN manager software
- Install software packages
- Respond to system messages
- Troubleshoot system
- Run software applications
- Back up and restore systems
- Perform system analysis
- Use security procedures
- Perform preventative maintenance
- Select access control and security
- Outline resource management
- Analyze network operations
- Check physical and virtual connections
- Modify network
- Apply standards
- Describe licensing
- Plan disaster recovery
- Address protocols (e.g., ethernet, token ring, Arcnet)
- Monitor network activity/performance
- Document actions taken
- Define the role of the LAN administrator
- Perform software license audit

BIL: Essential

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Competency: Perform network maintenance and diagnostics # *

Competency Builders:

Execute network diagnostics program for software

Execute network diagnostics program for hardware

Apply standard and protocols

Document action(s) taken (maintenance log)

Define a preventive maintenance schedule

BIL: Essential

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Competency: Explain disaster recovery and business resumption

Competency Builders:

Identify common backup devices

Explain criteria for selecting a type of backup system (tape)

Explain difference between disaster recovery and business resumption

Site examples of how to avoid common computer system disasters (e.g., UPS, RAID)

Contrast streaming and file-by-file backup systems

Explain process for archiving files

Explain steps of a disaster recovery plan and a business resumption plan

Unit: Basic Mainframe Concepts

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Describe mainframe operations

Competency Builders:

Identify types of mainframe memory

Identify data storage techniques used by mainframe operation

Explain how data is stored in mainframe computer memory

Explain how a mainframe computer system executes program instruction

Explain mainframe storage capacity

BIL: Recommended

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Competency: Explain mainframe operating systems

Competency Builders:

Identify operating systems and their attributes

Describe how commands handle tasks in operating systems

Describe the purpose of operating system utilities

Explain the difference between a compiler and an interpreter

Describe the processing that occurs when an interpreter is used

Describe the processing that occurs when a compiler is used

Describe process prioritization

BIL: Recommended

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Competency: Use mainframe database system

Competency Builders:

Edit data

Prepare reports using mainframe database

Explain types of database systems

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Operate mainframe computer systems

Competency Builders:

Define job, batch, and job step

Describe data requirements

Use appropriate reference materials

Perform log-on procedures

Use console device to interact with and respond to system messages

Follow processing procedures for each application/job

Describe scheduling priority

Describe transmittal form and transmittal log

Develop an audit trail

Handle materials and equipment in a responsible manner

Use data interchange methods

Describe the function of a job scheduler

Describe the use of a job control language

BIL: Recommended

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Competency: Maintain mainframe computer systems

Competency Builders:

Solve recoverable problems

Maintain security

Maintain computer log

Perform backup procedure(s)

Follow log-off procedure(s)

Explain quality control

BIL: Recommended

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Competency: Describe interface techniques

Competency Builders:

Identify elements of mainframe user interface

Describe client/server to mainframe connectivity

Identify mainframe hardware components and their advantages and disadvantages

Explain emulation software

Illustrate various forms of mainframe menus

Describe mainframe graphical user interface (GUI)

Describe gateway functionality and operation

BIL: Recommended

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Competency: Explain purpose of mainframe database systems

Competency Builders:

Define mainframe database

Explain terms used in mainframe database systems

Describe common function of mainframe database systems

Describe methods to interface with mainframe databases (e.g., ODBC)

BIL: Essential

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Competency: Store media

Competency Builders:

Identify need for data library

Describe filing and retrieval methods of stored media

Initialize and catalog media

Maintain company and/or government standards for media security

Maintain archives of company records required by policy or law

Unit: Computer Hardware Design & Maintenance

BIL: Recommended

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Competency: Explain standards *

Competency Builders:

Identify OSI, IEEE, ISO, and CCITT standards

Identify standard setting bodies and their proclamations

Explain conformance and APIs

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Describe computational site environment *

Competency Builders:

Identify environmental requirements, conditions, limitations

Identify power requirements and power supplies

Identify ergonomic issues

Identify structural capacities

Identify electrical wiring codes

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Differentiate among architecture and processor types *

Competency Builders:

Describe architecture and processors of microcomputers

Describe architecture and processors of minicomputers

Describe architecture and processors of mainframes

Describe internal box components

BIL: Essential

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Competency: Analyze computer systems architecture *

Competency Builders:

- Describe the principles and operation of addresses and interrupts
- Describe the principles and operation of volatile and non-volatile memory
- Describe the principles and operation of advanced memory techniques
- Define individual system blocks
- Interpret computer acronyms
- Describe priorities and interrupts at systems
- Identify direct memory access data handling system(s)
- Define functions of advanced memory techniques (e.g., virtual, pipeline, cache)
- Describe how commands handle tasks in operating systems
- Describe various input/output systems
- Describe various input/output devices
- Describe the purpose of operating system utilities
- Define analog and digital signals

BIL: Essential

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Competency: Describe operation of chips and boards *

Competency Builders:

Describe chip configuration and structure

Describe function of internal components

Describe operation of mother boards

Describe operation of co-processor boards (e.g., math, graphics, FAX, modems, voice)

Describe operation of controller cards

Describe operation of network interface cards

Describe operation of PCMCIA

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Describe operation of connectivity devices *

Competency Builders:

Describe operation of baluns

Describe operation of multiplexers, MODEMS, CODECS, DSU

Describe operation of switches, gateways, bridges, routers, brouters, and repeaters

Describe operation of test equipment (e.g., protocol analyzers)

BIL: Essential

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Competency: Explain operation of microprocessor systems *

Competency Builders:

Describe essential components of microprocessor and their functions

Describe principles and operation of BUS concepts (e.g., VESA, EISA)

Describe principles and operation of types of memory circuits

Identify operating systems (e.g., DOS, OS/2, UNIX)

Describe microprocessor instructions sets

Describe principles and operation of microprocessor machine

Identify types of input and output devices and peripherals

Describe principles and operation of storage devices

Interface input and output ports to peripherals

Identify central processing unit building blocks and their uses

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Install computer system (e.g., monitor, keyboard, disk drive, and printer) # *

Competency Builders:

Configure system

Verify system

Document system installation

Backup system configuration

Test all applications

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Troubleshoot a microcomputer system # *

Competency Builders:

- Identify priorities and interrupts at system level
- Demonstrate use of volatile and non-volatile memory
- Repair or replace volatile and non-volatile memory
- Operate diagnostic tools/software
- Identify operating system and related hardware issues
- Diagnose hardware failure vs. software failure
- Update flash memory

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain operation of peripheral equipment # *

Competency Builders:

Define printer types and interface controllers

Explain the operation of typical magnetic tape equipment and interface controllers

Describe disk equipment and interface controllers

Define environmental requirements for peripherals and media

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Troubleshoot peripheral equipment # *

Competency Builders:

Troubleshoot disk equipment and interface controllers

Troubleshoot and repair display terminals and interface controllers

Troubleshoot printers and interface controllers, including laser printers

Troubleshoot mouse

Troubleshoot bar code scanner

Troubleshoot CD-ROM

BIL: Essential

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Competency: Explain communication interfacing *

Competency Builders:

Identify basic EIA, IEEE, and CCITT standards

Differentiate sync and async devices

Define protocols

Define packet switching

Define multi-user systems

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Conduct disaster recovery

Competency Builders:

Gather information on problem from user

Conduct appropriate diagnostic tests

Repair or replace malfunctioning hardware

Re-install software as needed

Recover data and/or files

Restore system to normal operating standards

Unit: Small Business Management

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | |

Competency: Explain entrepreneurship # *

Competency Builders:

Identify characteristics of entrepreneurs

Identify qualities and skills needed by business owners

Identify means of obtaining technical assistance

Identify advantages and disadvantages of owning a small business

Describe basic factors contributing to business success

Describe a franchise-dealer relationship

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Identify role of small business in the economy # *

Competency Builders:

Describe effects of supply, demand, profit, and competition

Explain relationship of small business in the national (USA) and global economy

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Analyze how legislation affects small business *

Competency Builders:

Identify legal issues faced by entrepreneurs

Describe the relationship between government agencies and business owners (e.g., OSHA, taxes, EPA, NFPA, city, state, federal, disaster relief)

Participate in the legislative process

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Evaluate factors affecting small business management *

Competency Builders:

Identify cooperative arrangements

Describe legal forms of retail businesses

Differentiate between various types of insurable business risks

Describe social and ethical problems that affect business

Analyze current trends in business

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Develop a business plan*

Competency Builders:

List sources of information for starting a business

Classify local and state requirements for starting business

Identify means of obtaining technical and financial assistance

Select best location and layout

Analyze financing of business ownership

Select best location and layout for a business

Identify when and how to obtain appropriate legal assistance

Identify start-up cost

Develop budget

Identify advantages and disadvantages of each type of business ownership

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain marketing mix *

Competency Builders:

Explain importance of having the right product

Explain importance of having the product at the right place

Explain importance of having the product with the right promotion

Explain importance of having the product at the right price

Explain importance of having the product at the right time

Explain right target market

BIL: Essential

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Competency: Promote products and/or services *

Competency Builders:

Explain promotion function

Describe relationship of sales to promotion

Identify factors used to select appropriate products

Prepare merchandise/buying plan

Maintain vendor information and select appropriate vendors

Identify selling price

Analyze merchandising trends

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage customer relations *

Competency Builders:

Identify advantages of customer services and accommodations

Explain importance of price, quality, and variety

Use acceptable techniques in handling customer complaints

Identify customer wants/needs

Explain how to develop a good customer relationship

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Minimize internal theft *

Competency Builders:

Establish internal theft policy

Identify types of internal loss

Identify potential loss situations

Develop and/or follow company policies regarding internal theft

Develop and/or follow security procedures

Review internal controls

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain financial services *

Competency Builders:

Speculate on revenue sources and expenses

Explain importance of a sound credit rating

Outline long-range financial plans

Compare financial services available from financial institutions

Identify critical professionals used to assist decision making

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Prepare financial records and reports *

Competency Builders:

Classify revenue and expenses

Prepare financial statements

Classify revenue and expenses

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage finances *

Competency Builders:

Project revenue sources and expenses

Explain costs of obtaining financial assistance

Explain importance of a sound credit rating

Outline long-range financial plans

Explain how sources of finance are used in business operations

Compare financial services available from financial institutions

Define time value of money concepts

BIL: Essential

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Competency: Explain management's role in operating a business *

Competency Builders:

Explain importance of organizational skills

Identify management functions

Compare specific management techniques

Explain importance of time management

Identify benefits of membership in professional/trade associations

Identify professional support system

BIL: Essential

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Competency: Practice safety precautions # *

Competency Builders:

Maintain safe work area

Operate equipment safely

Practice safety to prevent accidents

Follow procedures for reporting accidents

Follow safety procedures for special populations

Follow sanitation and hygiene procedures

Report emergencies to proper authorities

Identify emergency evacuation plans

Operate fire and safety equipment

Develop basic first aid skills

Analyze economic impact of poor safety practices

Review safety policies

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Comply with government regulations *

Competency Builders:

Identify taxes affecting small businesses

Develop and/or follow policies of compliance

Monitor changing regulations

Follow government regulations (e.g., OSHA, EPA)

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Perform management activities # *

Competency Builders:

Define management

Describe basic principles of good management

Identify effective leadership traits

Develop management objectives

Explain role of management in operating a business

Identify purposes of forecasting

Develop short-term and long-term action plans

Describe importance of performance measurements and record keeping

Explain importance of keeping informed of developments and trends affecting business

Explain importance of planning for emergencies

Prepare managerial reports about production, personnel, equipment, and operational costs

Develop short/long range plans including Equal Access/Equal Employment Opportunity (EEO) guidelines

Develop procedures for handling employee complaints

Evaluate job applicants

Comply with equal employment opportunity (EEO) guidelines

Unit: Supervision

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage human resources # *

Competency Builders:

- Communicate performance expectations
- Counsel employees (e.g., career objectives)
- Maintain performance records
- Adhere to company policies regarding discrimination and harassment
- Address employees regarding disciplinary action(s)
- Recommend employees for promotion
- Explain procedure for handling grievances
- Evaluate employee performance
- Document personnel issues
- Dismiss employees
- Create and/or implement organizational charts
- Clarify company policies and procedures
- Establish office procedures
- Maintain office procedure manual(s)
- Prepare managerial reports
- Maintain appropriate work environment
- Conduct tours
- Provide and/or coordinate training for new policies
- Communicate performance expectations

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage projects #A *

Competency Builders:

Conduct needs analysis

Set priorities

Research information

Develop goals and objectives

Establish project time lines

Develop strategic plan

Develop project budget

Apply forecasting techniques

Apply prioritizing techniques

Schedule work assignments

Collect data

Analyze data

Monitor project progress

Meet project timelines

Monitor budget

Apply quality measures and counter measures

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Manage work flow # *

Competency Builders:

Plan office layout for work flow

Maintain office procedure manual(s)

Identify production standards

Prioritize work

Delegate work

Provide instruction

Monitor progress

Complete productivity and/or managerial reports

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Conduct staff/team meetings # *

Competency Builders:

Plan meeting

Set agenda

Set and schedule meeting

Schedule meeting room

Invite appropriate personnel

Identify need for outside speakers

Assign someone to take minutes

Make introductions

Invite questions and comments, and group participation

Decide appropriate action, time frame, and accountability to tasks

Monitor time

Publish minutes in timely manner

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Conduct training #A *

Competency Builders:

Secure training resources, materials, and equipment

Assess training needs

Set goals/competencies/standards for employees

Train employees

Evaluate progress (to document training effectiveness)

Provide appropriate feedback

Document training participation

Unit: Quality Assurance

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate knowledge of quality assurance # *

Competency Builders:

Define quality terms and functions

Identify features of quality planning

Explain the relationship among organizational structures, policies, procedures, and quality assurance

Describe successful efforts by industry to improve quality and/or reduced costs

Differentiate prevention and detection

Identify types of control charts

BIL: Essential

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Competency: Explain importance of interdepartmental relationships to quality assurance *

Competency Builders:

Explain need for whole company commitment in assuring quality

Define quality improvement team models

Explain project selection, implementation, and evaluation

Explain continuous improvement

Evaluate down stream effects of project implementation

Unit: Telephony Functions

BIL: Essential

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Competency: Demonstrate basic electronic skills

Competency Builders:

Demonstrate basic telephony concepts (e.g., analog, digital)

Demonstrate wiring concepts

Demonstrate use of basic test equipment

BIL: Essential

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Competency: Demonstrate basic telephony skills

Competency Builders:

Explain telephony concepts

Operate transmission test equipment

Explain operation of special circuit (e.g., FX, OPX, DID, DNIS, TIE)

Explain function/operation of central office

Explain application for telephony products (e.g., predictive dialer, V-MAIL, ACD, TAPI, CTI)

Explain telephony network engineering and design (e.g., repairs, muxes, channel banks)

Explain wireless communications

Explain satellite/microwave communication

Explain cellular/pager technology

Explain PCS technology

Unit: Training

BIL: Essential

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Competency: Determine training and development needs in an organization #A *

Competency Builders:

Explain the difference between training needs and development needs

Identify training and development needs

Analyze training and development needs

BIL: Essential

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Competency: Explain the role of training with an organization #A *

Competency Builders:

Explain how supervisors interact with the human resource and training departments

Explain the role of funding/budgeting in the development of training

Explain criteria used for the prioritizing of training needs

BIL: Essential

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Competency: Write effective course objectives *

Competency Builders:

Explain the criteria for effective training objectives

Prepare effective training objectives related to an organization's needs

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain major characteristics of adult learners *

Competency Builders:

Explain pedagogy vs. andragogy

Explain different adult learning styles

Explain ways to facilitate adult learning

BIL: Recommended

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Competency: Demonstrate different teaching techniques

Competency Builders:

Explain different teaching techniques

Explain advantages of different teaching techniques

Explain disadvantages of different teaching techniques

Develop lesson plans utilizing different teaching techniques

Demonstrate different teaching techniques

BIL: Essential

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Competency: Demonstrate effective use of major types of multi-media equipment # *

Competency Builders:

Explain best ways to integrate multi-media equipment into the training environment

Use major types of multi-media equipment effectively in a training session

BIL: Essential

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Competency: Use evaluative instruments #A *

Competency Builders:

Explain differences between pre- and post-testing

Explain and design various types of testing

Use various types of testing

Explain non-test evaluation

Unit: Statistics

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Make frequency distributions # *

Competency Builders:

Make ungrouped frequency distributions using raw data

Make grouped frequency distributions using raw data

Explain ungrouped frequency distributions

Explain grouped frequency distribution

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Present data graphically # *

Competency Builders:

Make line charts/frequency polygons

Make bar charts/histograms

Explain line charts/frequency polygons

Explain bar charts/histograms

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M |

Competency: Explain measures of central tendency

Competency Builders:

Define mean, median, and mode central tendency

Compute mean, median, and mode central tendency

Explain mean, median, and mode central tendency

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Explain measures of dispersion *

Competency Builders:

Define variance, average deviation, standard deviation, coefficient of variation

Compute variance, average deviation, standard deviation, coefficient of variation

Explain variance, average deviation, standard deviation, coefficient of variation

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Solve probability problems # *

Competency Builders:

Define joint, marginal, and conditional probabilities

Solve joint probability programs using addition, multiplication, permutation, and combination formulas

Solve marginal probability programs using addition, multiplication, permutation, and combination formulas

Solve conditional probability programs using addition, multiplication, permutation, and combination formulas

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Use binomial and normal probability distributions *

Competency Builders:

Explain binomial probability distributions

Explain normal probability distributions

Use binomial probability distributions

Use normal probability distributions

BIL: Essential

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| EDU: | 12 | AD | AC |
| | P | R | M, S |

Competency: Demonstrate knowledge of statistical inference # *

Competency Builders:

Explain sampling

Select appropriate method for selecting a sample

Explain hypothesis testing

State a hypothesis

Test a hypothesis

Unit: Banking Basics

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Describe basic structure of banks

Competency Builders:

Define terminology related to the banking industry

Explain the role of the Federal Reserve System in the banking industry

Describe types of financial institutions and services

Identify banking career paths (e.g., commercial, retail, operations)

Identify technology and software used in banking

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Describe services provided by banks

Competency Builders:

Identify basic services a bank provides for customers

Describe components of banks' deposit function

Describe the credit function of banks

Explain the importance of banks' credit function

Explain the role of customer sales in banking functions

BIL: Essential

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Competency: Describe reconciliation of checking accounts #

Competency Builders:

Define terminology related to checking accounts (e.g., negotiable instruments)

Describe the procedure for transferring funds between accounts by telephone

BIL: Essential

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Competency: Explain teller functions

Competency Builders:

- Identify primary areas of teller responsibility
- Identify types of negotiable instruments
- Explain the use of different types of negotiable instruments
- Describe procedures for processing various types of negotiable instruments
- Determine by examination if an instrument is negotiable
- Describe the effect of dates on negotiable instruments
- Explain the purpose of endorsements
- Describe types of acceptable endorsements
- Identify criteria for check acceptability
- Explain identification procedures
- Distinguish between acceptable and unacceptable sources of identification
- Identify characteristics of genuine currency and instruments
- Describe how to identify counterfeit currency and instruments
- Demonstrate currency-handling techniques
- Use a 10 key calculator quickly and accurately

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Demonstrate bookkeeping systems #

Competency Builders:

Define terminology related to bookkeeping

Describe bookkeeping systems and functions

Follow procedures for filing debits and credits

Follow procedures for rendering and preparing statements

Identify encoded groups of numbers on the bottom of debit slips and credit slips

BIL: Essential

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Competency: Describe credit investigation procedures

Competency Builders:

Identify types of credit

Describe sources of credit information

Complete a credit application form

Explain the categories of credit report information provided by credit bureaus

Explain the Fair Credit Reporting Act

Describe the steps of the credit investigation process

BIL: Essential

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| EDU: | 12 | AD | AC |
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Competency: Describe loans/leases

Competency Builders:

Define terminology associated with loans/leases and interest/charges

Identify types of loans/leases (e.g., unsecured, secured, closed-ended, open-ended)

Identify purposes of loans/leases

Match types and purposes of loans/leases

Identify factors that influence loan/leases interest rates

Describe standard repayment terms

Describe how lending/leasing decisions are made

Explain the Truth in Lending Act

BIL: Essential

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Competency: Calculate interest

Competency Builders:

Explain the purpose of interest

Compute simple interest on single payment loans

Compute simple interest for discounted notes

Compute add-on interest for installment loans

Demonstrate method of computing loan payoff

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Describe banking regulations

Competency Builders:

Identify federal agencies that provide regulation of financial intermediaries (e.g., FDIC)

Describe the regulatory role of each federal agency

BIL: Essential

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Competency: Describe investment instruments

Competency Builders:

Define terminology related to investments (e.g., principal, maturity)

Describe certificates of deposit (CDs)

Describe money market funds/accounts

Describe mutual funds

Describe treasury bills

Describe treasury notes and bonds

Describe securities

Unit: World Cultures

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Describe how cultural components differ among cultures

Competency Builders:

Define “culture”

Identify cultural components (e.g., language, beliefs, technology, institutions)

Describe the difference between culture and civilization

Compare components of various cultures

Describe factors that influence culture (e.g., geography, trade, diversity)

Define “cultural diffusion”

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Relate cultural ideas and information to life experience

Competency Builders:

Collect information about diverse cultures, environments, and people
Relate cultural similarities and differences to personal life experiences
Analyze how the presentation of information is influenced by culture
Illustrate how humans depend upon culture

BIL: Recommended

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Competency: Evaluate obstacles to cultural understanding

Competency Builders:

Define “ethnocentrism”

Identify ethnocentric attitudes

Define “stereotype”

Identify cultural stereotypes

Explain the dangers of ethnocentrism and stereotypes

Explain the concept of “The Ugly American”

Analyze own ideas about other cultures to identify stereotypes

Generate ideas for overcoming ethnocentrism and stereotypes

Define “human rights”

Evaluate arguments surrounding international human rights issues

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Analyze cultural demographics of major world regions

Competency Builders:

Compare the major cultural groups of the United States and another country

Compare the major cultural groups of two countries

Compare cultural groups within a country

Identify major cultural groups of East Asia

Identify major cultural groups of the Asian Sub-continent

Identify major cultural groups of the Middle East

Identify major cultural groups of Sub-Saharan Africa

Identify major cultural groups of Eastern Europe

Identify major cultural groups of Western Europe

Identify major cultural groups of Latin America

BIL: Recommended

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| EDU: | 12 | AD | AC |
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Competency: Analyze the impact of cultural environment on business

Competency Builders:

Identify social and cultural factors that affect the conduct of business

Compare and contrast business practices in different cultures

Illustrate how culture influences business operations

Identify U.S. cultural attitudes and practices that could inhibit successful business operations in another country

Analyze necessary modifications to American business practices for success in the global marketplace

Describe the steps to receive business visitors from specific countries

Describe negotiation tactics and decision-making processes of various cultures

Identify types of business relationships in various cultures

Compare business entertainment among people in various parts of the world

BIL: Recommended

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Competency: Describe customs that impact international business

Competency Builders:

Identify cultural differences in food, dress, and social behaviors

Compare the use of calendars in different societies

Identify major holidays of various cultures and how they are celebrated

Assess the importance of gift giving in various cultures

Unit: Basic Principles of Marketing

BIL: Recommended

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Competency: Demonstrate understanding of basic marketing principles #

Competency Builders:

Define basic marketing terminology (e.g., “market,” “marketing mix,” “market penetration”)

Identify purpose of marketing

Identify marketing activities

Identify elements in the marketing mix (e.g., price, product, promotion, place)

Explain market share

Identify factors affecting market share

Explain margin analysis

BIL: Recommended

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Competency: Describe marketing strategy #

Competency Builders:

Identify marketing strategies for differing products and services

Differentiate between industrial and consumer marketing

Differentiate between mass market and market segmentation approaches

Describe the process of identifying a market for a product or service

Describe the role of margin analysis in developing marketing strategy

Give examples of product positioning

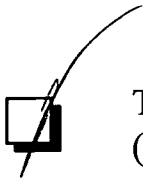


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