Energy Industry Employability Skills Blueprint

This Blueprint contains the subject matter content of this Career Essentials Assessment.  
Note: To fully prepare for Energy Industry Employability Skills SkillsUSA Championships contest, refer to the current year’s SkillsUSA Championships Technical Standard, now included with your SkillsUSA Professional Membership.  If you need help in accessing this benefit, contact the SkillsUSA Membership Office at 1-800-355-8422.

Standards and Competencies

Competencies are weighted throughout the assessment. The percent shown is the weight of the competency. There are 50 questions per assessment.

Demonstrate effective communication skills (such as public speaking, listening, reading, and writing) to function successfully in a variety of settings including school, home and work.

- Identify communication strengths and weaknesses
- Explain the importance of writing effectively
- Demonstrate effective communication with others
- Practice active listening
- Describe how to read with understanding
- Review a professional journal
- Complete a job application
- Research resume writing
- Demonstrate interviewing skills
- Develop a working relationship with a mentor
- Develop and make a presentation promoting career choice
- Write an article for a professional journal in a career area

Develop an understanding of effective customer relations and demonstrate proper customer service behavior

- Define the customer (internal and external)
- Identify customer expectations
- Develop customer service skills
- Understand the cost of customer service

Demonstrate career research and career development skills

- Research career interests
- Participate in a job shadow
- Define future occupations
- Identify personal interests
- Evaluate career goals and establish long-term goals
- Recognize how quickly jobs change and opportunities arise
- Explore opportunities for advanced training
- Effectively use available resources to identify fast growing career areas
- Formulate a Career Action Plan
- Construct a job search network
- Complete a job application
- Research resume writing
- Demonstrate interviewing skills
Demonstrate essential workplace or life skills

- Recognize and identify stress factors
- Recognize the importance of goals
- Evaluate professional development traits
- Complete a self-assessment and identify individual learning styles
- Discover self-motivation techniques and establish short-term goals
- Determine individual time-management skills
- Measure/modify short-term goals
- Recognize the benefits of good time management decisions
- Effectively use time-management tools, such as day planners, electronic schedulers and online calendars

Develop personal financial skills

- Develop a budget and differentiate between needs and wants
- Prioritize purchases with a budget
- Create a spending and savings plan
- Develop a business plan

Develop social etiquette and interpersonal skills

- Identify cooperative behaviors
- Engage in team building and negotiating
- Explain the importance of first impressions
- Describe and perform proper introductions
- Set basic table settings

Understand technology systems and use information technology tools

- Identify the various types of computer-based data
- Use basic e-mail functions,
- Use web-search applications
- Demonstrate software applications - word-processing, presentation, database, spreadsheet, design software and Web page software
- Design, conduct and evaluate a survey
- Assemble an electronic employment portfolio
- Construct a job search network

Apply conflict management skills, and an understanding of cultural, social, and ethnic diversity to achieve group goals and consensus

- Explore what's ethical in the workplace or school
- Identify personal conflicts that arise in the workplace
- Develop awareness of cultural diversity and equity issues
- Devise methods of conflict resolution
- Demonstrate evaluation skills
Understand legal and ethical responsibilities and exhibit personal accountability, integrity, and responsibility

- Identify personal qualities that are desirable for the workplace
- Describe workplace components
- Select characteristics of a positive image
- Examine ethics and values in the workplace

Identify problems, understands context, and develops creative solutions.

- Demonstrate evaluation skills
- Produce a list of potential volunteer activities
- Recognize benefits of doing a community service project
- Serve as a volunteer in the community

Demonstrate knowledge of engineering and technology principles using STEM

- Utilize Science Principles to solve engineering and technology problems
  - Apply knowledge of physical principles such as force, friction and energy
  - Analyze the relationship between weight and mass
  - Apply knowledge of laws of gravity
- Utilize Technology to solve engineering and technology problems
  - Apply knowledge of mass production
  - Apply knowledge of innovation
  - Apply knowledge of continuous improvement and optimization
  - Apply knowledge of the relationship and interchangeability among components of systems
- Utilize Engineering principles to solve engineering and technology problems
  - Apply knowledge of appropriate trade-offs within design requirements
- Use Mathematical formulas and techniques to solve engineering and technology problems
  - Add, Subtract, Multiply and Divide with whole numbers, decimals, and percents
  - Utilize measurement tools, methods, and conversions
  - Calculate geometric sizes and shapes
  - Solve simple algebraic equations

Engineering Design

- Utilize the Engineering Design Cycle
  - Identify the problem or opportunity
  - Identify possible solutions through problem solving skills
    - Apply brainstorming techniques
    - Collect and analyze data effectively
    - Explain cause and effect relationships
  - Select optimum specifications and create models and prototypes
  - Test solutions in a controlled environment
  - Redesign based on the evaluation of the models and prototypes
  - Implement and monitor for future improvements
- Utilize troubleshooting and quality control methods for diagnosis
Individual and Team Project Planning
- Identify project requirements and estimate resources
- Create an effective project plan
  - Prioritize tasks
  - Define milestones
- Anticipate project constraints and create alternative plans
- Evaluate and report on the results of the project

Teamwork Skills
- Define team roles and responsibilities
- Demonstrate effective communication skills
- Demonstrate positive group dynamics

Safety
- Comply with safety procedures and proper ways to perform work
- Select the right tool for the job and use tools safely
- Utilize resources to understand how things safely work