

**COMPETENCY MODEL**  
**APPRENTICE – METAL TRADES (2016)**  
**CLASS CODE 3789**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **APPRENTICE – METAL TRADES**. (Numbers refers to the order of competencies in the Competency Bank.)

1. Reading Comprehension
2. Mathematics
8. Safety Focus
10. Physical Capability
19. Job Interest
23. Equipment Operation
24. Mechanical Aptitude
33. Interpersonal Skills

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized*, **bolded**, and underlined), examples of behavioral indicators, and satisfactory and superior performance levels.

**1. READING COMPREHENSION** – Comprehends and correctly applies information presented in written form. Makes correct inferences; draws accurate conclusions.

Level of Competency Required by Job:

Level 1: Concrete, specific job-related information (work orders; instructions; material/equipment labels)

**Level 2: General information related to field of work and assignments; (articles in trade publications; technical/instructional manuals; memos; letters; e-mails; reports)**

Level 3: Abstract/complex information (highly technical articles/ reports in specialized area; legal or other regulatory material)

Examples of Behavioral Indicators:

- Follows written instructions correctly.
- Learns information presented in writing.
- Identifies relevant written information.
- Interprets written legal regulatory material accurately.

Performance Levels:

Satisfactory

Read instructions correctly. Learns from manual and other printed material.

Superior

Learns from manual and may answer others' questions. Explains information presented in written form to others.

**2. MATHEMATICS** – Performs arithmetic or higher-level mathematical computations accurately.

Level of Competency Required by Job:

Level 1: Perform arithmetic computations (add, subtract, multiply, divide, ratios, percentages).

**Level 2: Use algebra (substitute numbers for letters in a formula), geometry (angles, distances, area), and/or descriptive statistics (mean/median/mode, standard deviation, range).**

Level 3: Apply and interpret calculus, inferential statistics (t-tests, correlations, ANOVA, multiple regressions) or other very high level mathematics.

Examples of Behavioral Indicators:

- Quickly and accurately performs arithmetic computations.
- Appropriately selects and applies formulas for stated purpose.
- Correctly identifies an appropriate analysis for a specific purpose and selects the appropriate computer program for computation.
- Accurately interprets and presents results of mathematical/statistical computations.

Performance Levels:

Satisfactory

Knows mathematical requirements of the job and performs them correctly. Verifies work to ensure accuracy.

Superior

Identifies additional opportunities for the application of mathematics in work. Answers questions/trains others to assist them in their use of mathematics

**8. SAFETY FOCUS** – Performs work in a way that minimizes risk of injury to self or others.

Level of Competency Required by Job:

Level 1: Maintain awareness of unsafe conditions and actions to avoid injury.

Level 2: Follow safety rules/procedures; avoid known hazards in the work environment.

**Level 3: Carefully follow safety rules and procedures and consistently use all necessary safety equipment.**

Examples of Behavioral Indicators:

- Wears seat belt.
- Ensures safe physical work environment by taking actions such as eliminating unstable stacks of materials, closing drawers so filing cabinets will not tip over, and keeping pathways clear of tripping hazards.
- Reviews safety procedures before beginning each job with known hazards.
- Follows safety procedures while performing work even when it takes more time.
- Uses safety equipment such as goggles, gloves, and earplugs as required or warranted.
- Frequently checks safety equipment for proper condition and operation.

Performance Levels:

Satisfactory

Maintains awareness of personal safety to avoid injury or property damage during all work activities.

Superior

“Safety first.” Places avoidance of injury or property damage above all other job requirements. Mentions the need to follow safe work practices to co-workers. Actively seeks ways to avoid injury

## 10. PHYSICAL CAPABILITY – Strength, endurance, flexibility, and/or coordination.

### Level of Competency Required by Job:

Level 1: Sitting and/or standing for extended periods of time.

**Level 2: Awkward body position and/or precise motions required; and/or repeated lifting, carrying, and/or manipulation of objects; and/or walking for extended periods of time.**

Level 3: Continuous or extreme exertion of physical effort.

### Examples of Behavioral Indicators:

- Sits and may occasionally stand or walk for entire workday (except breaks).
- Walks for the duration of the workday.
- Repetitive motion required to perform task.
- Repeatedly lifts and carries heavy objects.
- Exerts maximal effort for extended periods of time.

### Performance Levels:

#### Satisfactory

Performs tasks requiring physical capability satisfactorily and without undue physical stress or harm.

#### Superior

Performs tasks requiring physical capability correctly with relative ease. May be asked to perform the most physically demanding tasks or be sought by co-workers for assistance

**19. JOB INTEREST** – Seeks out and participates in training and other experiences relevant to performance of a specific type of work to obtain employment in that field.

Level of Competency Required by Job:

Level 1: Knowledge of the full range of job activities and has acquired some related education, training, and/or experience.

**Level 2: Considerable relevant knowledge has been provided by a variety of education, training, and/or experience.**

Level 3: In-depth knowledge relevant to the job and the ability to promptly assume job responsibilities have been provided by extensive education, training, and/or experience and possibly having a mentor.

Examples of Behavioral Indicators:

- Learned about job (field of work) by talking to people in it, observation, reading, and/or internet searches.
- Successfully completed job-specific courses or certification program.
- Acquired a mentor through a formal program or informally.
- Performs volunteer work within the field of work desired.
- Completed a college degree program related to the field.

Performance Levels:

Satisfactory

Knowledgeable about the positive and negative aspects of the job. Has successfully pursued some job-related education, training, experience, and/or other activities.

Superior

Has pursued education, training, experience and/or other activities to provide preparation specific to the field of work to the greatest extent possible.

**23. EQUIPMENT OPERATION** – Operates specialized equipment in performance of job duties.

Level of Competency Required by Job:

Level 1: Operate equipment based on on-the-job training.

Level 2: Operate equipment based on attendance at a training program and practice.

**Level 3: Operate equipment for which in-depth, complex training was required and which may require certification.**

Examples of Behavioral Indicators:

- Operates equipment proficiently.
- Operates equipment with strict adherence to safety procedures.
- Understands the operation of equipment used on the job and correctly answers questions about it.
- Willingly participates in any training necessary to maintain up-to-date knowledge of equipment operation.

Performance Levels:

Satisfactory

Operates equipment safely and with a high degree of proficiency.

Superior

Operates equipment with extreme proficiency and correctly answers questions about its operation. Trains and/or coaches others in the operation of equipment.

**24. MECHANICAL APTITUDE** – Accurately predicts the impact of forces on objects and assesses the behavior of other physical phenomena (e.g., volume, weight, velocity). Readily learns work involving the application of mechanical principles.

Level of Competency Required by Job:

Level 1: Maintain a safe work environment by ensuring objects in it are stable, tools and equipment are properly used.

**Level 2: Know the physical properties of objects in the work environment and correctly anticipate the action of forces upon them; performs work accordingly (correctly and safely).**

Level 3: In-depth understanding of mechanical and physical phenomena sufficient to design and/or oversee the construction of systems.

Examples of Behavioral Indicators:

- Recognizes the impact of an earthquake on objects in the work environment and re-arranges them as possible to avoid possible damage or destruction and potential to cause injury.
- Uses tools properly to accomplish work correctly and safely.
- Recognizes the effects of various actions on objects and performs only those actions that will accomplish intended result and will not cause property damage or injury.
- Systems designed and/or for which construction is overseen operate as intended upon completion.

Performance Levels:

Satisfactory

Recognizes the operation of mechanical/physical phenomena sufficient to readily learn and perform work of a mechanical nature.

Superior

Displays exceptional insight into the operation of mechanical phenomena, and makes correct inferences regarding it. Promptly and accurately troubleshoots problems

### 33. INTERPERSONAL SKILLS – Interacts effectively and courteously with others.

#### Level of Competency Required by Job:

**Level 1: *Interact with members of the workgroup, supervision, and/or the public in a cordial, service-oriented manner.***

Level 2: Interact across department lines and with appointed City officials, and/or members of the public, at times under adversarial circumstances, in a cordial, respectful manner.

Level 3: Interact with appointed and elected City officials, department heads, representatives of external organizations, and/or the media in a cordial, effective manner.

#### Examples of Behavioral Indicators:

- Works well with others toward mutual objectives.
- Does not arouse hostility in others.
- “Disagrees without being disagreeable.”
- Elicits acceptance/cooperation from others.
- Affords all individuals respect, regardless of their role or status.
- Effectively addresses concerns of politicians or others who may have their “own agenda.”

#### Performance Levels:

##### Satisfactory

Behaves in a courteous, respectful, cooperative manner toward co-workers, other City employees, and members of the public.

##### Superior

Facilitates positive interpersonal relations within/among workgroups and toward members of the public. Adept at finding similarities and grounds for cooperation/mutual benefit.

