**Summary of Changes  
Engineering Competency Model**

The Engineering Competency Model was updated in 2025 and 2017.

**February 2025 Update:**

Updates have been made on Tiers 1 and 2, to align with the new Building Blocks Model, including the addition of new digital literacy competencies.

**December 2017 Update:**

# Tier 1 – Personal Effectiveness Competencies

* No changes were made to the Tier 1 Competencies.

# Tier 2 – Academic Competencies

* Added key behavior description to Communication block.

## 2.5 Communication

* *2.5.1 Communicating* 
  + Added key behavior description: *2.5.1.7 Ask questions or report problems or concerns to people in authority when information or procedures are unclear or need improvement, or when feeling unsafe or threatened in the workplace.*

# Tier 3- Workplace Competencies

* No changes were made to the Tier 3 Competencies.

# Tier 4- Industry-Wide Technical Competencies

* Added and key behavior titles and descriptions to 4.10 Health, Safety, Security, and Environment block and updated several existing key behavior descriptions.
* Added key behavior titles *4.10.1 Maintaining a healthy and safe environment* & *4.10.2 Safeguarding one’s person*

## 4.10 Health, Safety, Security, and Environment

* 4.10.1 Maintaining a healthy and safe environment
  + Added key behavior title *4.10.1 Maintaining a healthy and safe environment*
  + Added key behavior descriptions:
    - 4.10.1.2 Anticipate and prevent work-related injuries and illnesses.
    - 4.10.1.5 Recognize common hazards and unsafe conditions that occur at work, their risks, and appropriate controls to address them
    - 4.10.1.6 Follow organizational procedures and protocols for workplace emergencies, including safe evacuation, and emergency response
    - 4.10.1.7 Maintain a sanitary and clutter free-work environment
    - 4.10.1.8 Administer first aid or CPR if trained and summon assistance as needed
    - 4.10.1.9 Properly handle and dispose of hazardous materials
  + Edited key behavior descriptions:
    - ~~4.10.5~~ 4.10.1.1 Take actions to ensure the safety of self and others, in accordance with established personal and jobsite safety practices including environmental incident and hazard investigations and preventative inspections
    - ~~4.10.2~~ 4.10.1.3 Comply with federal, state, local, and environmental regulations, and company health and safety policies
  + Deleted key behavior descriptions:
    - 4.10.1 Ensure that equipment is being used safely
    - 4.10.3 Identify unsafe or insecure conditions and take corrective action
    - 4.10.4 Conduct health, safety, and/or environmental incident and hazard investigations. (Merged with 4.10.5 into 4.10.1.1.)
* *Added key behavior title* 4.10.2 Safeguarding one’s person
  + Added key behavior descriptions:
    - 4.10.2.1 Engage in safety training.
    - 4.10.2.2 Use equipment and tools safely.
    - 4.10.2.3 Use appropriate personal protective equipment.
    - 4.10.2.4 Recognize how workplace risks can affect one’s life and one’s family.
    - 4.10.2.5 Understand the legal rights of workers regarding workplace safety and protection from hazards.
    - 4.10.2.6 Report injuries, incidents, and workplace hazards to a supervisor as soon as safely possible.
    - 4.10.2.7 Contribute to discussion of safety concerns in the workplace, making suggestions as appropriate.
    - 4.10.2.11 Select and take appropriate steps to report to higher-level management or to public authorities safety matters that are not adequately resolved in a manner consistent with public health, safety and welfare
* 4.10.6 Regulations
  + Added key behavior descriptions
    - 4.10.6.10 Safety standards created by standards developing organizations.
  + Edited key behavior descriptions:
    - 4.10.6.5 Role of the Occupation Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the Environmental Protection Administration (EPA) or other appropriate regulatory bodies in the workplace