Strand: **PT-SAS1**  
**Problem Solving and Critical Thinking**  
Students use information technology to define, test, and solve problems.

**Standard:**  
**PT-SAS1a:** The student will clarify the problems or issues to be addressed and the objectives so as to:

**Components:**  
**PT-SAS1a.1:** identify constraints and parameters;  
**PT-SAS1a.2:** obtain and analyze available information and statistical data;  
**PT-SAS1a.3:** generate alternative ideas, proposals, and solutions that would solve the problem;  
**PT-SAS1a.4:** evaluate alternative solutions;  
**PT-SAS1a.5:** identify the best solution based on risks, costs, and benefits; and  
**PT-SAS1a.6:** present the solution and the logic and the rationale for the solution.

**Standard:**  
**PT-SAS1b:** The student will analyze and evaluate ideas, proposals, and solutions to the problem so as to:

**Components:**  
**PT-SAS1b.1:** evaluate the quality of information used to support the solution; and  
**PT-SAS1b.2:** evaluate the risks, costs, and benefits of testing and implementing the solution.

**Standard:**  
**PT-SAS1c:** The student will develop solutions to performance problems using a structured problem-solving process so as to:

**Components:**  
**PT-SAS1c.1:** describe the problem completely and accurately using data and graphs and charts;  
**PT-SAS1c.2:** develop and present a comprehensive mapping of potential root and indirect causes (e.g., troubleshooting diagram);  
**PT-SAS1c.3:** identify and evaluate alternative solutions;  
**PT-SAS1c.4:** test, monitor, and evaluate best solutions; and  
**PT-SAS1c.5:** develop plans to fully implement solutions to address performance problems.

Strand: **PT-SAS2**  
**Maintaining Facilities, Equipment, and Supplies**  
Students use information technology to manage facilities, equipment, and supplies.

**Standard:**  
**PT-SAS2a:** The student will develop and manage repair plans so as to:

**Components:**  
**PT-SAS2a.1:** identify and describe automotive equipment reliability/performance problems;  
**PT-SAS2a.2:** determine causes of reliability/performance problems of equipment, subsystems, and/or components including electrical/electronics, fluid power, and mechanical systems and computer-controlled systems;  
**PT-SAS2a.3:** determine repair procedures and equipment, materials, parts, supplies, and labor requirements to accomplish repairs; and
PT-SAS2a.4: present and explain report/findings to customer.

Strand: PT-SAS3

Facility and Mobile Equipment Maintenance
Students understand preventive maintenance and repair strategies.

Standard: PT-SAS3a: The student will develop and manage preventative maintenance plans and systems so as to:

Components: PT-SAS3a.1: develop and manage preventative maintenance plans and systems to meet business and equipment manufacturer requirements; and

PT-SAS3a.2: monitor and evaluate the performance of maintenance plans and systems.

Standard: PT-SAS3b: The student will maintain and improve facilities, equipment, and system performance so as to:

Components: PT-SAS3b.1: develop and manage repair plans; and

PT-SAS3b.2: develop plans for improving facilities/equipment/system performance.

Strand: PT-SAS4

Management of Sales and Service Operations
Students use technology to manage sales and service operations,

Standard: PT-SAS4a: The student will determine sales growth opportunities for new products and services so as to:

Components: PT-SAS4a.1: analyze changing customer/market needs;

PT-SAS4a.2: evaluate competitor products/services and pricing strategies;

PT-SAS4a.3: determine future demand for potential products and services; and

PT-SAS4a.4: identify most promising products and services.

Standard: PT-SAS4b: The student will sell transportation services so as to:

Components: PT-SAS4b.1: establish customer relationship;

PT-SAS4b.2: determine customer needs;

PT-SAS4b.3: describe and explain alternative products, services, and pricing;

PT-SAS4b.4: assist customer in making decisions;

PT-SAS4b.5: close customer sale; and

PT-SAS4a.6: complete sales transaction.

Strand: PT-SAS5

Employability and Career Development
Students use skills to plan career paths and pursue career opportunities.

Standard: PT-SAS5a: The student will locate appropriate information on organizational policies in handbooks and manuals so as to:

Component: PT-SAS5a.1: select the appropriate document(s) as referenced for the situation.

Standard: PT-SAS5b: The student will demonstrate flexibility and willingness to learn new knowledge and skills so as to:
Components:  

**PT-SAS5b.1:** display initiative and open-mindedness in accomplishing a work challenge; and  

**PT-SAS5b.2:** complete all tasks thoroughly and identify strategies for accomplishing job.