

# Knowledge, Skill, Ability, and Personal Characteristic Statements

## Senior Telecommunications Engineer

KSAPC #	KSAPC Statement
1.	Knowledge of the theory and principles of telecommunications and electronics for the installation, maintenance, modification, and repair of equipment and systems.
2.	Ability to apply the theory and principles of telecommunications and electronics for the installation, maintenance, modification, and repair of equipment and systems.
3.	Knowledge of the design, uses, and functions of telecommunication systems and equipment (e.g., wireline, radio, fiber, satellite, data communications, telephone systems) in order to perform essential work functions.
4.	Knowledge of principles, practices, methods, terminology and trends in telecommunication systems engineering.
5.	Knowledge of frequency spectrum allocations to effectively design telecommunication systems.
6.	Knowledge of the field of electromagnetic wave propagation to effectively design and test telecommunications systems.
7.	Knowledge of engineering economics to determine whether proposals are economically feasible.
8.	Ability to interpret and apply provisions of State and federal rules and regulations affecting the design, implementation, and operation of telecommunication systems.
9.	Ability to maintain confidentiality to ensure compliance with the applicable laws, regulations, and rules.
10.	Knowledge of industry standards and best practices related to the design, implementation, and maintenance of telecommunication systems.
11.	Ability to apply industry standards and best practices to the design, implementation, and maintenance of telecommunication systems
12.	Ability to use computers and network equipment to configure, monitor, test and/or operate telecommunication systems.
13.	Knowledge of various types of information processing and networking hardware as they are utilized in telecommunication systems.
14.	Knowledge of the methods used to organize the work involved in multiple projects to maximize efficiency.
15.	Ability to delegate work assignments at the appropriate level of responsibility.

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16.	Knowledge of supervisory principles, practices, and techniques to plan, oversee, and direct the work activities of staff.
17.	Knowledge of equal employment opportunity principles, regulations, and objectives to support equal employment opportunity policies and goals.
18.	Knowledge of the progressive disciplinary process in order to maintain a productive work environment.
19.	Ability to apply appropriate managerial techniques to ensure effective supervision of assigned staff.
20.	Ability to apply leadership practices and motivational techniques to build and lead/manage effective teams for the accomplishment of assigned work.
21.	Knowledge of leadership practices and motivational techniques to maintain a productive work environment.
22.	Ability to monitor the work of staff to ensure that it meets standards of quality, quantity, and timeliness.
23.	Knowledge of procurement and contracting requirements in accordance with the State Administrative Manual to ensure compliance.
24.	Ability to understand and apply State requirements for the procurement and contracting of goods and services used in telecommunication systems.
25.	Ability to identify performance issues in staff and opportunities for improvements and take appropriate corrective actions.
26.	Ability to develop work plans and other project management documents to monitor work projects.
27.	Ability to identify and analyze functional and operational requirements and to develop solutions that satisfy end user telecommunication needs.
28.	Ability to monitor and control the scope, schedule and resources of a telecommunication project to ensure its successful completion.
29.	Ability to effectively manage changes in scope, schedule and/or resources for a telecommunications project or task.
30.	Ability to write clearly and concisely using proper spelling, grammar, syntax and sentence structure.
31.	Ability to verbally communicate information and ideas so others will understand.
32.	Ability to develop and maintain constructive and cooperative working relationships.
33.	Ability to write technical reports to communicate complex information to various audiences.
34.	Ability to actively listen to others to facilitate an open exchange of ideas and provide for effective communication.
35.	Ability to effectively communicate in front of groups to facilitate an open exchange of ideas.
36.	Ability to develop specific goals and plans to accomplish work.

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37.	Ability to adapt to changes in priorities, work assignments, and other factors.
38.	Ability to prioritize work assignments and/or problem solutions to ensure completion within established timeframes.
39.	Ability to work on multiple projects and/or assignments concurrently to enhance productivity and achieve intended results.
40.	Ability to work independently on projects or assignments without close supervision or detailed instructions to achieve intended results.
41.	Ability to perform job tasks during stressful working conditions (e.g., deadlines, multiple assignments).
42.	Knowledge of mathematical principles used in design and implementation of telecommunication systems.
43.	Knowledge of statistical analysis techniques in order to interpret data and make recommendations.
44.	Ability to apply mathematical principles and statistical analysis to design and evaluate telecommunication systems.