

Classification and Qualification



STANDARDS

The California State University System

Information Technology Series Operations Specialist

CLASSIFICATION OVERVIEW

Position in this classification are primarily responsible at varying levels for the effective operation, monitoring, and control of multisystem information processing or transmission equipment. Types of systems and equipment supported may include mainframe consoles, on-line terminals, peripheral equipment (e.g., tape drives, printers), micro/mini computers, super computers, network devices, file servers, telecommunication systems and devices, and media production and broadcast equipment.

Positions in this classification typically reside in central computing, telecommunications, network, or media operations. In some cases, this classification may be found in administrative or academic departments where complex, integrated systems have been developed independent of centralized operations requiring dedicated technical operations support staff. Typical titles include: Computer Operator, Network Operator, TV Production Operator, Telecom Operator and Computer Operations Analyst.

ENTRY QUALIFICATIONS

To enter this classification, a basic foundation of knowledge and skills in information processing and/or transmission equipment and the ability to read and interpret descriptive and quantitative information (e.g., technical manuals, equipment diagrams, and specifications) is required. In addition, a basic knowledge of mathematics and written and oral communication skills is necessary to communicate and document operational information. This foundation would normally be obtained through a general high school education and limited experience in related technical operations. Directly related coursework applicable to the position's area of technology may be preferred.

Further progress within this classification is based on department need and work assignments requiring higher levels of skills and knowledge. Based on position requirements, it may be appropriate to obtain formal educational or theoretical background in industrial technology, communication, electronics, or related technical fields. *Refer to the Information Technology Series Introduction for level definitions.*

CORE FUNCTIONS

The core functions of the Operations Specialist are:

- Technical Operations
- Operations Support
- Operations Analysis

These core functions represent major categories of work within the Operations Specialist classification. Typical activities and core skills for each core function cited below are illustrative; campus assignments may vary.

CORE FUNCTION

Technical Operations

Examples of Typical Activities:

Multi-System Operation:

Ensure effective operation of assigned systems and equipment. Examples of typical work activities include:

- Operate multiple systems (e.g., mainframe consoles, peripheral equipment, telecommunication devices, broadcast equipment), and/or operate and monitor network devices (e.g., multiplexors and router, file and print servers, port selectors, and other communication devices), and/or operate media origination and transmission or broadcast equipment (e.g., video recorders, cameras, switches, modulators, transmitters);
- Verify systems and network availability and respond to error messages;
- Calibrate, adjust, and align equipment;
- Perform backup/recovery procedures;
- Reset malfunctioning lines or connections;
- Ensure that operations documentation and procedures are accurate and current, and

System Maintenance and Administration:

Ensure that all equipment or system components are adequately maintained. Examples of typical work activities include:

- Conduct preventative maintenance and cleaning of equipment and facilities;
- Perform minor or simple repairs;
- Analyze system or equipment problems and request repair service as required;
- Determine points of equipment and/or program failure and work with analyst or vendors to resolve problems;
- Maintain user accounts;
- Update system messages;
- Maintain line location records;
- Assemble support facilities.

Security:

Ensure that physical equipment, systems, and data or products are secured and undamaged. Examples of typical work activities include:

- Monitor authorization levels for system access and/or equipment usage;
- Develop or recommend department security policies and procedures;
- Monitor environmental conditions;
- Enforce physical security of equipment and materials;
- Administer alarm systems.

CORE SKILLS

Technical Operations

- Knowledge of applicable system and related technical terminology, applications, features, and/or services.
- Ability to interpret applicable reference manuals and apply department procedures.
- Understanding of procedures for setting up and operating assigned systems and/or equipment.
- Ability to perform regular preventative maintenance and service on assigned equipment/systems, including ability to identify, solve, and prevent problems.
- Ability to use basic diagnostic and test equipment and interpret and document operations-related malfunctions.
- Ability to interpret system status reports and messages.
- Familiarity with network and operating system requirements.
- Ability to monitor and adjust environmental and security systems.

CORE FUNCTION

Operations Support

Examples of Typical Activities:

Scheduling:

Ensure that scheduling of jobs/orders is prioritized to best meet user requests. Examples of typical work activities include:

- Schedule computer jobs and maintain production run schedules;
- Provide for network access and timesharing;
- Prioritize or rearrange job/work order sequence;
- Communicate with users on scheduling requirements and job status;
- Determine work flow of equipment or systems installation requests;
- Determine videotape channel assignments;
- Provide electronic or physical distribution of instructional media to classrooms.

Production/Quality Control:

Ensure quality control of system or equipment output. Examples of typical work activities include:

- Maintain quality assurance using appropriate test and system monitoring procedures;
- Identify system aborts and/or equipment failure and take corrective action;
- Ensure integrity of production files and output;
- Modify production procedures as needed;
- Ensure integrity of on-line systems (e.g., video broadcast signals, on-line data files).

Material Maintenance:

Ensure materials, inventory, records, storage, and distribution systems are properly maintained. Examples of typical work activities include:

- Plan and implement methods for storage, retrieval, and processing of applicable materials and inventories;
- Initialize and prepare storage media (e.g., tapes, cartridges, film);
- Maintain library and archival storage;
- Initiate orders;
- Ensure inventory records are up to date and accurate;
- Issue equipment loans to faculty and students;
- Provide video copying services.

CORE SKILLS

Operations Support

- Knowledge of production job flow and required inputs and outputs.
- Ability to interpret, communicate, and act on scheduled job/work orders.
- Ability to maintain work order and inventory record systems.
- Ability to run the material and/or equipment distribution function
- Ability to develop schedules for materials and personnel resources based on estimates of resource allocations.
- Demonstrated competence in service and/or product delivery.
- Ability to manipulate jobs, queues, timeshare sessions, or electronic distribution to meet client needs.
- Ability to interpret equipment/system output, detect errors, and take corrective action.
- Ability to use applicable procedural and/or application software.
- Demonstrated ability to work and communicate with users to effectively identify and efficiently meet their requirements.

CORE FUNCTION

Operations Analysis

Examples of Typical Activities:

Performance Analysis:

Analyze systems and operations and recommend changes to maximize efficiency. Examples of typical work activities include:

- Monitor overall system or operation performance, utilization, and response time;
- Conduct remote diagnostics;
- Determine overall production turnaround time to optimize resources;
- Evaluate events log to identify potential problems;
- Prepare troubleshooting checklists and procedures for use in resolving or correcting operating problems;
- Consult with systems and technical staff regarding operating requirements and problems;
- Analyze ongoing transmission quality and signal levels;
- Track traffic and response time statistics.

Application/Database Support:

Optimize system and equipment features fully utilizing programmatic and database functions. Examples of typical work activities include:

- Select programmatic parameters (e.g., define system options most suitable to operations); recommend or program new features, services, or procedures;
- Develop command level applications and program formats;
- Install single utilities;
- Monitor application software;
- Ensure database integrity and produce system reports.

CORE SKILLS

Operations Analysis

- Knowledge of operating system and/or equipment features and ability to take appropriate action in response to system failures or inaccessibility.
- Demonstrated ability to perform remote diagnostics and ability to perform analysis and tuning of system.
- Ability to apply statistical techniques and simulation in measuring and resolving performance problems.
- Ability to use performance monitoring software and interpret results; basic knowledge of database management software.
- Ability to distinguish operational performance trends and recommend modifications to improve performance.
- Demonstrated ability to schedule and monitor projects and coordinate with others to achieve desired outcomes.