



# SENIOR TELECOMMUNICATIONS ENGINEER

**Exam Code: 0PBCJ**

**Department:** State of California

**Exam Type:** Servicewide, Open

**Final Filing Date:** Continuous

## CLASSIFICATION DETAILS

If you have tested for the Senior Telecommunications Engineer classification as part of the Senior and Supervising Telecommunications Engineer exam in the previous 6 months, it may be too early for you to take this exam. Please check your CalCareer account for the retake date on your exam results notification for this classification BEFORE continuing this exam process. Retaking this exam under another or a new User I.D. and password, Social Security Number (voluntary, not required, information), or name is not allowed.

Senior Telecommunications Engineer – \$10,886.00 - \$13,625.00 per month

[View the Senior Telecommunications Engineer classification specification](#)

## APPLICATION INSTRUCTIONS

Final Filing Date: Continuous

### Who Should Apply:

Applicants who meet the minimum qualifications as stated on this bulletin may apply for and take this examination.

Once you have taken this examination, you may not retake it for **six (6) months**.

### How To Apply:

The link to connect to the Training and Experience Evaluation is located farther down on this bulletin in the "Taking the Exam" section.

### Special Testing Arrangements:

If you require special testing arrangements due to a verified disability or medical condition, please contact:

California Department of Human Resources  
CalCareer Service Center  
1810 16<sup>th</sup> Street Sacramento, CA 95814  
Phone: (866) 844-8671  
Email: [CalCareer@CalHR.CA.GOV](mailto:CalCareer@CalHR.CA.GOV)

California Relay Service: 7-1-1 (TTY and voice)

TTY is a Telecommunications Device for the Deaf, and is reachable only from phones equipped with a TTY Device

## **MINIMUM QUALIFICATIONS**

All applicants must meet the education and/or experience requirements as stated on this exam bulletin to be accepted into the examination. Part-time or full-time jobs, regardless of whether paid or volunteer positions, and inside or outside California state service will count toward experience.

### **Senior Telecommunications Engineer**

#### **All Levels**

Education: Candidates applying under non-State requirements must meet the following education requirements: Equivalent to graduation from college with major work in electrical, electronic, or communications engineering. (Additional qualifying experience may be substituted for the required education on a year-for-year basis.) (A Master's Degree in Electrical Engineering with specialization in electronics or communications may be substituted for the required experience for Assistant Telecommunications Engineer. Applicants who are pursuing graduate work toward a master's degree will be admitted to the examination, but they must receive the degree before they will be considered for appointment.)

#### **Either 1**

Two years of experience performing the duties of an Associate Telecommunications Engineer.

#### **Or 2**

Five years of engineering experience in the field of telecommunications which must have included three years in the design, construction, or maintenance of radio communications systems or wire communications systems.

## **POSITION DESCRIPTION**

### **Senior Telecommunications Engineer**

This is the first supervisory level of the series. Under general direction, incumbents plan and direct the work of a staff in an assigned program area; or as non-supervisor, make telecommunication engineering surveys and studies of major statewide importance.

## **EXAMINATION SCOPE**

This examination consists of the following components:

## **Training and Experience Evaluation – Weighted 100% of the final score.**

The examination consists solely of a **Training and Experience Evaluation**. To obtain a position on the eligible list, a minimum score of 70% must be received. Applicants will receive their score upon completion of the Training and Experience Evaluation process.

In addition to evaluating applicants' relative knowledge, skills, and ability, as demonstrated by quality and breadth of education and/or experience, emphasis in each exam component will be measuring competitively, relative job demands, each applicant's:

### **Knowledge of:**

1. Electronics theory
2. Engineering mathematics
3. Principles, practices, methods, terminology and trends in wire communications systems engineering and mobile and microwave radio communications engineering including the fields of radio frequency allocations, electromagnetic wave propagation, radio field strength measurements, and tolerances
4. Theory and operation of telephone, data telegraph and teletype systems
5. Engineering economics
6. Federal Communications Commission rules and regulations
7. Traffic handling procedures
8. California State Communications Law and the Federal Communications Act of 1934
9. Principles of personnel management and supervision
10. Procedures used in hearings before regulatory bodies, methods of organization
11. Principles of budgeting
12. Department's Affirmative Action Program objectives
13. A manager's role in the Affirmative Action Program and the processes available to meet affirmative action objectives

### **Ability to:**

1. Perform radio and electronic research projects
2. Prepare engineering reports and surveys
3. Design
4. Write specifications and make final engineering recommendations on various radio and wire communications systems
5. Analyze technical data
6. Establish and maintain cooperative relations with those contacted in the work
7. Interpret and apply provisions of the California State Communications Act and the Federal Communications Act of 1934
8. Apply knowledge of wire communications systems to the communications problems of State agencies
9. Secure a valid second class or higher radio-telephone operator license issued by the Federal Communications Commission when such license is or will be necessary for performance of the assigned work
10. Plan, organize and direct the work of a group of telecommunications engineers
11. Effectively contribute to the department's affirmative action objectives

## ELIGIBLE LIST INFORMATION

A servicewide, open eligible list for the **Senior Telecommunications Engineer** classification will be established for the State of California (all State of California departments, statewide).

The names of successful competitors will be merged onto the eligible list in order of final score regardless of exam date. Eligibility expires **twelve (12) months** after it is established. Applicants must then retake the examination to reestablish eligibility.

Veterans' Preference will be granted for this examination. In accordance with Government Codes 18973.1 and 18973.5, whenever any veteran, or widow or widower of a veteran achieves a passing score on an open examination, he or she shall be ranked in the top rank of the resulting eligible list.

Veterans status is verified by the California Department of Human Resources (CalHR). Information on this program and [the Veterans' Preference Application](#) (Std. form 1093) is available online. Additional information on veteran benefits is available at the Department of Veterans Affairs.

Career Credits **will not** be added to the final score for this exam because it does not meet the requirements to qualify for Career Credits.

## EXAMINATION INFORMATION

[Preview of the Senior Telecommunications Engineer Training and Experience Evaluation](#)

## PREPARING FOR THE EXAMINATION

Here is a list of suggested resources to have available prior to taking the exam.

**Employment History:** Employment dates, job titles, organization names and addresses, names of supervisors or persons who can verify your job responsibilities, and phone numbers of persons listed above.

**Education:** School names and addresses, degrees earned, dates attended, courses taken (verifiable on a transcript), persons or office who can verify education, and phone numbers of persons or offices listed above.

**Training:** Class titles, certifications received, names of persons who can verify your training, and phone numbers of persons listed above.

## TAKING THE EXAMINATION

We recommend using Chrome, Firefox, or Edge for optimal performance when accessing the examination.

**Note:** This examination is being given online and you are able to take the examination at any time on any day of the week. Once you click [Take the Senior Telecommunications Engineer examination](#) classification button, your time will begin. There is no way to pause, stop, or reset the timer once you start. A stable internet connection is recommended as no additional time will be provided for internet loss, power loss, or computer/browser issues.

**At this time, if you are unable to complete the timed examination, it is recommended you do not continue until you are able to do so.**

## **TESTING DEPARTMENTS**

State of California (all State of California departments)

## **CONTACT INFORMATION**

California Department of Human Resources  
CalCareer Service Center  
1810 16<sup>th</sup> Street

Sacramento, CA 95814  
Phone: (866) 844-8671  
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## **EQUAL OPPORTUNITY EMPLOYER**

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right of family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding, and related medical conditions), and sexual orientation.

## **DRUG-FREE STATEMENT**

It is an objective of the State of California to achieve a drug-free State work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the State, the rules governing civil service, and the special trust placed in public servants.

## **GENERAL INFORMATION**

Examination and/or Employment Application (STD 678) forms are available at the California Department of Human Resources, local offices of the Employment Development Department, and through your [CalCareer Account](#).

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described in this bulletin will be rated against a predetermined job-related rating, and all applicants who pass will be ranked according to their score.

The California Department of Human Resources (CalHR) reserves the right to revise the examination plan to better meet the needs of the service, if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all applicants will be notified.

**General Qualifications:** Applicants must possess essential personal qualifications including integrity, initiative, dependability, good judgement, the ability to work cooperatively with others, and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

**Eligible Lists:** Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-departmental promotional, 4) servicewide promotional, 5) departmental open, 6) open. When there are two lists of the same kind, the older must

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be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

High School Equivalence: Equivalence to completion of the 12<sup>th</sup> grade may be demonstrated in any one of the following ways: 1) passing the General Education Development (GED) Test; 2) completion of 12 semester units of college-level work; 3) certification from the State Department of Education, a local school board, or high school authorities that the competitor is considered to have education equivalent to graduation from high school; or 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.