



**DEPARTMENT OF WATER RESOURCES
EXAMINATION ANNOUNCEMENT**



The Department of Water Resources offers Equal Opportunity for all regardless of race, color, creed, national origin, ancestry, sex, marital status, disability, religious or political affiliation, age, or sexual orientation.

It is an objective of the State of California to achieve a drug-free State workplace. 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.

**MECHANICAL ENGINEER
OPEN EXAMINATION
(CAMPUS ONLY)**

FINAL FILING DATE

Various

CAMPUS INTERVIEWS ARE SCHEDULED AT THE FOLLOWING CAMPUSES ON THE DATES INDICATED.

Contact the Career Center to schedule an appointment for an interview. **Please fill out a Standard State Application (Form 678), AND BRING IT WITH YOU TO THE INTERVIEW.** The application form may be downloaded from SPB website at <http://www.spb.ca.gov/jobs/stateapp.htm>

*Campus policy states that ONLY alumni and graduating seniors of this campus are eligible to participate in this interview.

WHO SHOULD APPLY

This is an open examination. Applications will not be accepted on a promotional basis. Career credits do not apply.

IDENTIFICATION REQUIRED

Accepted applicants are required to bring either a photo identification card or two forms of signed identification to each phase of the examination.

SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special testing arrangements, mark the appropriate box in Question 2 of the "Application for Examination." You will be contacted to make specific arrangements.

SALARY RANGE

Range A: \$4,279 - \$4,953
Range B: \$4,899 - \$4,951

Range C: \$5,604 - \$6,807
Range D: \$6,270 - \$7,617

Range A: This range shall apply to incumbents who do not meet the criteria for Range B, Range C, or Range D.
Range B: This range shall apply to persons who have either: (1) One year of experience in the California state service performing duties equivalent to a Mechanical Engineer, Range A, or (2) Two years of professional engineering experience outside State service performing mechanical engineering work designing, planning, and writing specifications for mechanical systems in dams, electrical power and pumping plants, substations, radio stations, highways, tunnels, bridges, and institutional and office buildings; preparing designs, detailed drawings, and specifications for mechanical systems such as heating, ventilating, air-conditioning, refrigeration, plumbing, water supply and water purification systems, sanitary and drainage systems, or steam generating plants; checking working drawings, preparing material lists and purchasing requisitions; making detailed field inspections of material and equipment, and construction operations; making or supervising the installation, repair, or recommending improvements of mechanical equipment or systems; leasing the work and reviewing the reports of lower-level engineers; and preparing correspondence and reports, **and** A bachelor's degree in an engineering curriculum accredited by the Accreditation Board for Engineering and Technology, **or**
 A master's or doctorate degree in an engineering curriculum from a college or university that has an engineering baccalaureate degree program accredited by the Accreditation Board for Engineering and Technology.
Range C: This range shall apply to persons who have either:
 1. Two years of experience in the California state service performing duties equivalent to a Mechanical Engineer, Range B. **or**
 2. Three years of professional engineering experience outside State service performing mechanical engineering work designing, planning, **and** writing specifications for mechanical systems in dams, electrical power and pumping plants, substations, radio stations, highways, tunnels, bridges, and institutional and office buildings; preparing designs, detailed drawings, and specifications for mechanical systems such as heating, ventilating, air-conditioning, refrigeration, plumbing, water supply and water purification systems, sanitary and drainage systems, or steam generating plants; checking working drawings; preparing material lists and purchasing requisitions; making detailed field inspections of material and equipment, and construction operations; making or supervising the installation, repair, or recommending improvements of mechanical equipment or systems; leading the work and reviewing the reports of lower-level engineers; and preparing correspondence and reports **and**
 A bachelor's degree in an engineering curriculum accredited by the Accreditation Board for Engineering and Technology. (Possession of a Doctor's Degree in Engineering may be substituted for two years of experience; possession of a Master's Degree in Engineering may be substituted for one year of experience.)
Range D: This range shall apply to persons who have:
 Possession of a valid certificate of registration as an engineer issued by the California State Board of Registration for Professional Engineers.
 When the requirements for movement to Range B or C are met and upon recommendation of the appointing power, the employee shall receive the rate in Range B or C under the provisions of Department of Personnel Administration Rule 599.676, except that upon movement from Range C to Range D, the provisions of Department of Personnel Administration Rule 599.674(b) shall apply.

ELIGIBLE LIST INFORMATION

Names of successful competitors will be merged onto the list in order of final scores, regardless of date. Eligibility expires after 12 months.

EXAMINATION DATES

<p>UC Davis * Alumni & Visitors Center Davis, CA 95616 To Be Announced</p>	<p>CSU, Sacramento * Riverside Hall Sacramento, CA 95819 To Be Announced</p>	<p>California Polytechnic State University* Buehler Student Services, Building 124 San Luis Obispo, CA 93407 To Be Announced</p>
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REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

Education: Graduation from a curriculum in mechanical engineering accredited by the Engineer's Council for Professional Development or equivalent qualifications. (Registration as a "senior" in such a curriculum will admit applicants to the examination but they must produce evidence of graduation before they will be considered eligible for appointment.)

Or

Possession of equivalent qualifications may be demonstrated by qualifying in a written examination covering basic mechanical engineering and by graduation from an engineering curriculum which includes the engineering courses normally included in a standard four-year course in mechanical, chemical, or industrial engineering. (Registration as a "senior" in such a curriculum will admit applicants to the qualifying written examination, but they must produce evidence of graduation before they will be considered to meet the minimum qualifications.)

**MECHANICAL ENGINEER
OPEN EXAMINATION
(CAMPUS ONLY)**

**BULLETIN RELEASE DATE: Various
FINAL FILING DATE: Various**

**POSITION
DESCRIPTION**

A Mechanical Engineer, under direction, performs the less complex field and office mechanical engineering work. Incumbents typically design calculations, equipment selection, cost estimates and layouts, write technical specifications for mechanical portions of projects, such as heating, ventilating, air conditioning, pumps, valves, and piping systems; make field inspections of material and equipment and supervise the installation of mechanical equipment.
Positions exist in Sacramento with the Department of Water Resources.

**EXAMINATION
INFORMATION**

Testing periods are from January 1 – June 30; July 1 – December 31. Candidates may be tested only once during a testing period.

This examination will consist of a written test weighted pass/fail and a qualifications appraisal interview weighted 100.00%. In order to obtain a position on the eligible list, a minimum rating of 70.00% must be attained.

SCOPE OF EXAMINATION

Written Test – Weighted Pass/Fail

Scope:

A. Knowledge of:

1. Mechanical Engineering Fundamentals.

NOTE: Aids, such as slide rules or pocket calculators will not be allowed in this examination.

Qualifications Appraisal Interview – Weighted 100.00%

Scope:

A number of pre-determined job related questions will be asked in order to test each competitor's:

A. Knowledge of:

1. Engineering fundamentals and mathematics.
2. General design, layout, and specification writing for pumps, motors, valves, cranes, and other mechanical equipment including heating, ventilation and air conditioning (HVAC);
3. Principles of fluid flow, heat transfer, machine design, thermodynamics, and hydraulics.
4. Various codes and standards governing the design and installation of mechanical equipment.
5. Methods of fabrication relating to mechanical equipment.

B. Ability to:

1. Perform mechanical design work.
2. Make correct computations and cost estimates.
3. Prepare effective oral and written reports.
4. Prepare computer aided designs; drawings and technical sketches.
5. Specify proper equipment and materials.
6. Accurately interpret drawings and specifications.
7. Perform field inspections and tests of mechanical installations.
8. Maintain cooperative relations with others.
9. Analyze situations accurately and take effective action.

WRITTEN TEST DATES

TO BE ANNOUNCED (TBA)

WRITTEN TEST WAIVER

The written test will be waived for applicants who are "seniors" in or who have graduated from a curriculum in engineering accredited by the Accreditation Board for Engineering and Technology. Individuals who have passed the Engineer written test within the past 12 months will not be scheduled for the written examination. Also, individuals possessing an Engineer-in-Training Certificate will not be required to take the written examination.

**VETERANS
PREFERENCE**

Veterans Preference Credit will be added to the final score of all competitors who are successful in this examination and who qualify for and have requested these points through the State Personnel Board. Due to changes in the law effective January 1, 1996, **VETERANS WHO HAVE ACHIEVED PERMANENT CIVIL SERVICE STATUS ARE NOT ELIGIBLE TO RECEIVE VETERANS' CREDITS.**

GENERAL INFORMATION

The Department of Water Resources 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 competitors will be notified.

For any examination without a written feature it is the candidate's responsibility to contact the Recruitment and Selection Services Section of the Department of Water Resources, (916) 653-6876 three weeks after the final filing date if he/she has not received a progress notice.

Applications are available at Department of Water Resources' offices, local office of the Employment Development Department, the State Personnel Board, and the SPB web site: www.spb.ca.gov

If you meet the requirements stated on the reverse, you may take this examination, which is competitive. Possession of the entrance requirement does not assure a place on the eligible list. Your performance in the examination described on this bulletin will be compared with the performance of the others who take this test, and all candidates who pass will be ranked according to their scores.

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties of the classification.

Examination Locations: When a written test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. Ordinarily, qualifications appraisal interviews are scheduled in Sacramento and Los Angeles. However, locations of interviews may be limited or extended as conditions warrant.

If a candidate's notice of oral interview fails to reach him/her prior to the day of the interview due to a verified postal error, he/she will be rescheduled upon written request.

Interview Scope: When an interview is conducted, in addition to the scope described on this bulletin, the panel will consider education, experience, personal development, personal traits, ability and fitness. In appraising experience, more weight will be given to the breadth and recency of pertinent experience and evidence of the candidate's ability to accept and fulfill increasing responsibilities than to the length of his/her experience. Evaluation of a candidate's personal development will include consideration of his/her recognition of his/her own training needs; his/her plans for self-development; and the progress he/she has made in his/her efforts toward self-development.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) subdivisional promotional, 2) departmental promotional, 3) multidepartmental promotional, 4) servicewide promotional, 5) departmental open, 6) open eligible list. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on this bulletin. In the case of continuous testing examinations, names are merged into the appropriate lists in order of final test scores (except as modified by veterans preference credits) regardless of the date of the test, and the resulting eligible lists will be used only to fill vacancies in the area shown on the bulletin.

Devices for Communications Impairment

TDD is Telecommunications Device for the Deaf and is reachable only from phones equipped with a TDD Device. TDD: (916) 653-1804; California Relay Service: 1-800-735-2929 (TDD); 1-800-735-2922 (Voice)

For information regarding this examination, please contact Anne Luc at (916) 653-6876 or aluc@water.ca.gov