

Research Scientist Series

California State Personnel Board Specification

Series established July 23, 2002

Salary Information by Class Title

Class Code	Class Title	Probation Period
5582	Research Scientist	12 Months
5594	Staff Research Scientist	12 Months
5609	Senior Research Scientist	12 Months
5629	Principal Research Scientist	12 Months
5643	Research Scientist Supervisor I	12 Months
5651	Research Scientist Supervisor II	12 Months
5662	Research Scientist Manager	12 Months

This series specification describes professional Research Scientist classifications responsible for the direction and conduct of highly specialized scientific research necessary to meet the responsibilities of the state to protect and improve the health of its citizens, wildlife, agricultural productivity, and environment. The disciplines of research include: biological sciences, chemical sciences, epidemiology/biostatistics, food and drug sciences, microbiological sciences, physical and engineering sciences, social/behavioral sciences, veterinary sciences, and emerging scientific disciplines.

Biological Sciences – Incumbents conduct, analyze, and draw conclusions from biological research studies, experiments, or investigations of organisms, their environment, and ecological systems to provide diagnostics and identifications of organisms of potential agricultural or environmental importance in order to safeguard agriculture and the environment, and to improve understanding of biodiversity, agriculture, and the environment.

Chemical Sciences – Incumbents conduct, analyze and draw conclusions from scientific research to improve the detection and identification of specific genetic or non-genetic diseases or clinical conditions, chemicals and biochemical to prevent the adverse effects of chemical exposure.

Epidemiology/Biostatistics – Incumbents conduct and apply statistical and survey techniques and biologic theory for the purpose of describing and understanding the distribution and determinants of disease, health, and genetic conditions in human or wildlife populations and the response of their health care systems.

Food and Drug Sciences – Incumbents conduct and analyze research studies on food, cosmetics, consumer products, drugs, and medical devices to ensure their safety and effectiveness.

Microbiological Sciences – Incumbents conduct, analyze, and draw conclusions from research studies of the microbial, viral, and immunologic aspects of infectious diseases to improve methods to prevent infectious disease transmission, and investigate infectious disease outbreaks.

Physical Engineering Sciences – Incumbents conduct, analyze, and draw conclusions from research studies on effects of physical and chemical exposure to improve detection and identification of physical and chemical agents to protect against the effects of exposures to physical and chemical agents.

Social/Behavioral Sciences – Incumbents apply theoretical models and research methods to develop new effective public health prevention programs focused on preventing unhealthful behaviors and promoting health by behavior modification through health education.

Veterinary Sciences – Incumbents design, conduct, analyze, and draw conclusions from research studies and scientific investigations in veterinary public health, wildlife health, and food safety and security to understand the distribution, determinants, and control of zoonotic agents, food borne illnesses, and other serious conditions that can affect the food supply.

DESCRIPTION OF LEVELS

Positions allocated to this classification series may typically incorporate duties from one or more research scientist discipline. Work in some disciplines may not be typical for all levels within the series.

Research Scientist

Under supervision, at the entry level, incumbents plan, organize, and carry out scientific research studies of limited scientific scope and complexity; may serve as a team member on projects and investigations or act as a technical scientific consultant on a specific phase of a more complex scientific study.

Under general supervision, at the first journey level, incumbents plan, organize, and carry out scientific research studies of moderate scientific scope and complexity; adapt research methods to problems with limited scope; may serve as a team member projects and investigations; and act as a technical scientific consultant on a specific phase of a more complex scientific research study.

Staff Research Scientist

Under direction, at the full journey level, incumbents plan, organize, and direct scientific research studies of a highly developed scientific scope and complexity; make independent, complex decisions in their specific scientific field; may serve as scientific advisors or consultants to other scientists in their specific scientific field; and adapt methods, techniques, and procedures to carry out assignments.

Senior Research Scientist

Under general direction, at the advanced journey level, incumbents plan, organize, and direct major, complex scientific research studies with statewide sensitivity and policy impact; make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk; develop and test hypotheses on causes; conceive, plan, and conduct complex, large scope, scientific research work on a statewide or national basis in unexplored areas of research.

Principal Research Scientist

Under general direction, at the expert level, incumbents conceive, plan, organize, and direct the most difficult, advanced, complex, and highly original scientific research studies; provide

leadership and coordinate scientific research studies, scientific investigations, and clinical services involving local, state, and federal agencies; make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk; and develop and test hypotheses on causes.

Research Scientist Supervisor I

This is the working supervisor level. Under direction, incumbents provide administrative guidance and direction to subordinates; plan, organize, and direct major scientific research studies or investigations of a broad scientific scope and complexity; make independent decisions in their specific scientific field; and may serve as advisors or consultants to other scientists in their specific scientific field.

Research Scientist Supervisor II

This is the full supervisory level. Under general direction, incumbents provide administrative guidance and leadership in planning, organizing, and directing major original scientific research studies or investigations that have broad statewide scientific scope, high sensitivity, and policy impact; make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk; develop hypotheses on causes, and test these hypotheses; conceive, plan, and conduct large scope scientific research work on a statewide or national basis.

Research Scientist Manager

This is the managerial level. Under administrative direction, incumbents provide leadership and oversight of scientific research studies and scientific investigations performed by subordinate staff involving local, state, and federal agencies; conceive, plan, organize, and direct the most difficult, advanced, complex, and highly original scientific research studies or investigations; direct the interpretation of research findings for use in policy development; participate in the development of policy; provide scientific support and direction for the legal, legislative, and regulatory actions that occur in policy development.

COMPETENCIES

All Levels:

Knowledge of: Current scientific research literature and trends applicable to the scientific research area; principles and procedures of scientific research and investigation planning, design, methodology and analysis; methods of preparation of scientific research reports; scientific statistical methods and procedures; data processing techniques; bibliographic survey or previous related scientific research techniques; determination and qualification of variables and mechanization of compilation of scientific data.

Ability to: Evaluate the adequacy of proposed scientific research and investigation designs and techniques; think independently and creatively; establish and maintain cooperative relations with professional staff and with officials of Federal, State, local, university and private research organizations; communicate effectively, prepare scientific articles for publication; prepare scientific reports; provide persuasive and skilled leadership to other staff in scientific research, principles and methods; apply professional scientific knowledge and administrative ability to resolve a variety of situations; analyze situations accurately and take effective action.

Research Scientist

All of the above, and participate as a team member on research or scientific investigation projects; make independent decisions in a very limited area of a scientific field; provide

information to higher-level scientists in support of decisions on scientific research; interpret scientific findings and present to higher-level scientists; apply established guidelines and scientific techniques; serve as team leaders on small scientific projects; and make independent, difficult decisions in a specific scientific field.

Staff Research Scientist

Ability to: All of the above, and plan, organize, and direct scientific research studies of a highly developed scientific scope and complexity; serve as a team leader for complex research or scientific investigation projects; serve as a consultant to other research scientists; make scientifically-based decisions within the project scope.

Senior Research Scientist

Ability to: All of the above, and apply expert scientific knowledge in their stated area of specialty; work independently and develop scientific guidelines and technical procedures; make recommendations to management on scientific policy issues.

Principal Research Scientist

Ability to: All of the above, and serve as a team leader for complex scientific research or investigation projects; apply expert knowledge in their stated area of specialty; coordinate research and scientific studies involving other agencies that result in a comprehensive finished scientific product; act as a subject matter and scientific technical expert; serve as a spokesperson in a scientific area appropriate to the specialty; provide scientific support for the legal, legislative, and regulatory actions that occur in policy development.

Research Scientist Supervisor I

Knowledge of: A supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment which is free of discrimination and harassment; principles of personnel management, supervision, and training.

Ability to: Perform the abilities identified in the Research Scientist and Staff Research Scientist levels, and serve as a direct supervisor and team leader for complex scientific projects; supervise and direct a work unit of professional classes; make scientifically-based decisions within the project scope that may affect department policies; effectively promote equal opportunity in employment and maintain a work environment that is free of discrimination and harassment.

Research Scientist Supervisor II

Knowledge of: A supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment which is free of discrimination and harassment; principles of personnel management, supervision, and training.

Ability to: Perform the abilities identified in the Senior Research Scientist and Research Scientist Supervisor I levels, and direct complex and sensitive programs or components; make decisions on operational plans; use scientific expertise to plan and direct major research studies and investigations; apply expert knowledge; serve as a spokesperson in a specific scientific area; participate in the development of policy; and effectively promote equal opportunity in employment and maintain a work environment that is free of discrimination and harassment.

Research Scientist Manager

Knowledge of: A manager's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment which is free of discrimination and harassment; principles of personnel management, supervision, and training.

Ability to: Perform the abilities identified in the Principal Research Scientist and the Research Scientist Supervisor II levels, and serve in the top management structure as managers over subordinate Research Scientists at all levels, Research Scientist Supervisors, and other multidisciplinary staff positions; exercise independent scientific judgment in overseeing the conduct of the most complex work of disputed or controversial professional scientific issues; make budgetary and fiscal decisions impacting departmental scientific programs; make scientifically-based decisions that impact general policy; serve as spokesperson for the department in the broad scientific areas; and effectively promote equal opportunity in employment and maintain a work environment that is free of discrimination and harassment.

MINIMUM QUALIFICATIONS

Research Scientist

Possession of a bachelor's degree or advanced degree from an accredited college in any of the above research disciplines, public health, or closely related science or field.

Staff Research Scientist

Three years of scientific research experience in any of the above research disciplines, public health, or closely related science or field, of which shall include one year of experience planning, organizing and carrying-out scientific research studies of moderate scientific scope and complexity. (One year towards completion of a doctoral degree in any of the above research disciplines, public health, or closely related science or field may be substituted for one year of the required experience. And possession of a master's degree or doctoral degree in any of the above research disciplines, public health, or closely related science or field.

Senior Research Scientist

Four years of scientific research experience or medical specialization in any of the above research disciplines, public health, or closely related science or field, of which shall include at least one year of experience planning, organizing, and directing scientific research studies of a highly developed scientific scope and complexity. (Possession of a master's degree in Public Health or preventive medicine from an accredited college may be substituted for two years of the required experience.) And possession of a doctoral degree from an accredited college in any of the above research disciplines, public health, or closely related science or field; or possession of the degree of Doctor of Medicine.

Principal Research Scientist

Five years of broad and extensive scientific research experience in any of the above research disciplines, public health, or closely related science or field, of which shall include two years of experience planning, organizing, and directing complex and sensitive, major scientific research studies of a highly developed scientific scope. (Possession of a master's degree in Public Health or preventative medicine from an accredited college may be substituted for two years of the required experience.) And possession of a doctoral degree from an accredited college in any of the above research disciplines, public health, or closely related science or field; or possession of the degree of Doctor of Medicine.

Research Scientist Supervisor I

Four years of scientific research experience or medical specialization in any of the above research disciplines, public health, or closely related science or field, of which shall include at least one year of experience planning, organizing, and directing scientific research studies of a highly developed scientific scope and complexity. (Possession of a master's degree in Public Health or preventive medicine from an accredited college may be substituted for two years of the required experience.) And possession of a doctoral degree from an accredited college in any of the above research disciplines, public health, or closely related science or field; or possession of the degree of Doctor of Medicine.

Research Scientist Supervisor II

Five years of broad and extensive scientific research experience in any of the above research disciplines, public health, or closely related science or field, of which shall include either: 1) two years of experience providing administrative guidance and direction to subordinates in the planning, organizing, and directing of scientific research studies or investigations; or 2) two years of experience planning, organizing, and directing complex and sensitive, major scientific research studies of a highly developed scientific scope. (Possession of a master's degree in Public Health or preventative medicine from an accredited college may be substituted for two years of the required experience.) And possession of a doctoral degree from an accredited college in any of the above research disciplines, public health, or closely related science or field; or possession of the degree of Doctor of Medicine.

Research Scientist Manager

Six years of broad and extensive scientific research experience in any of the above research disciplines, public health, or closely related science or field, of which shall include either: 1) two years of experience providing administrative guidance and leadership in planning, organizing, and directing major original scientific research studies or investigations that have broad scientific scope, high sensitivity, and policy impact; or 2) three years of experience planning, organizing, and directing complex and sensitive, major scientific research studies of a highly developed scientific scope. (Possession of a master's degree in Public Health or preventative medicine from an accredited college may be substituted for two years of the required experience.) And possession of a doctoral degree from an accredited college in any of the above research disciplines, public health, or closely related science or field; or possession of the degree of Doctor of Medicine.

PREFERED OR DESIRABLE QUALIFICATIONS

Positions involved in conducting inspections and collecting samples under contract to United States Food and Drug Administration (FDA), operating under the Federal Food, Drug and Cosmetic Act or reviewing confidential FDA investigative and other non-public information, the incumbent must meet the requirements to be commissioned by the FDA which may include a background check.

Positions involving the practice of veterinary medicine and surgery, or any branch thereof, will require a valid license issued by the Board of Examiners in Veterinary Medicine for the State of California to practice as a Doctor of Veterinary Medicine prior to appointment.

All employees must have general qualifications as described by California Code of Regulations, title 2, section 172.

CLASS HISTORY

Class Title	Date Established	Date Revised	Title Changed
Research Scientist	07/23/2002	6/1/2017	6/1/2017
Staff Research Scientist	07/23/2002	6/1/2017	6/1/2017
Senior Research Scientist	07/23/2002	6/1/2017	6/1/2017
Principal Research Scientist	07/23/2002	6/1/2017	6/1/2017
Research Scientist Supervisor I	07/23/2002	6/1/2017	6/1/2017
Research Scientist Supervisor II	07/23/2002	6/1/2017	6/1/2017
Research Scientist Manager	07/23/2002	6/1/2017	6/1/2017

Research Scientist

Alternate Range Criteria 492

Range A. This range shall apply to persons who do not meet the criteria for Range B.

Range B. This range shall apply to persons who have:

Two years of satisfactory experience performing scientific research that included responsibility for determining research design, choice of methods, and analysis of findings.

(Possession of a master's degree from an accredited college or university in any of the following may be substituted for one year of the required experience: biological sciences, chemical sciences, epidemiology/biostatistics quantitative sciences, clinical laboratory science, food and drug sciences, microbiological sciences, physical and engineering sciences, social/behavioral sciences, veterinary sciences, public health or a closely related science or field.)

When the requirements for the particular criteria are met and upon recommendation of the appointing power, the employee shall receive a rate under the provisions of California Code of Regulations, title 2, section 599.674.

RESEARCH SCIENTIST MAPPING

CURRENT			PROPOSED		
ID	Class ID	Class Title	ID	Class ID	Class Title
M	5661	RESEARCH SCIENTIST MANAGER (CHEMICAL SERVICES)	M		RESEARCH SCIENTIST MANAGER
M	5662	RESEARCH SCIENTIST MANAGER (EPIDEMIOLOGY/BIOSTATISTICS)	M	5662	
M	5667	RESEARCH SCIENTIST MANAGER (FOOD AND DRUG SCIENCES)	M		
M	5669	RESEARCH SCIENTIST MANAGER (MICROBIOLOGICAL SCIENCES)	M		
M	5670	RESEARCH SCIENTIST MANAGER (PHYSICAL/ENGINEERING SCIENCES)	M		
M	5671	RESEARCH SCIENTIST MANAGER (SOCIAL/BEHAVIORAL SCIENCES)	M		
M	5675	RESEARCH SCIENTIST MANAGER (VETERINARY SCIENCES)	M		
S	5650	RESEARCH SCIENTIST SUPERVISOR II (CHEMICAL SCIENCES)	S		RESEARCH SCIENTIST SUPERVISOR II
S	5651	RESEARCH SCIENTIST SUPERVISOR II (EPIDEMIOLOGY/BIOSTATISTICS)	S	5651	
S	5652	RESEARCH SCIENTIST SUPERVISOR II (FOOD AND DRUG SCIENCES)	S		
S	5654	RESEARCH SCIENTIST SUPERVISOR II (MICROBIOLOGICAL SCIENCES)	S		
S	5655	RESEARCH SCIENTIST SUPERVISOR II (PHYSICAL/ENGINEERING SCIENCES)	S		
S	5656	RESEARCH SCIENTIST SUPERVISOR II (SOCIAL/BEHAVIORAL SCIENCES)	S		
S	5660	RESEARCH SCIENTIST SUPERVISOR II (VETERINARY SCIENCES)	S		
S	5638	RESEARCH SCIENTIST SUPERVISOR I (CHEMICAL SCIENCES)	S		Research Scientist Supervisor I
S	5643	RESEARCH SCIENTIST SUPERVISOR I (EPIDEMIOLOGY/BIOSTATISTICS)	S	5643	
S	5644	RESEARCH SCIENTIST SUPERVISOR I (FOOD AND DRUG SCIENCES)	S		
S	5645	RESEARCH SCIENTIST SUPERVISOR I (MICROBIOLOGICAL SCIENCES)	S		
S	5646	RESEARCH SCIENTIST SUPERVISOR I (PHYSICAL/ENGINEERING SCIENCES)	S		
S	5647	RESEARCH SCIENTIST SUPERVISOR I (SOCIAL/BEHAVIORAL SCIENCES)	S		
S	5649	RESEARCH SCIENTIST SUPERVISOR I (VETERINARY SCIENCES)	S		
R	5627	RESEARCH SCIENTIST V (CHEMICAL SCIENCE)	R		Principal Research Scientist
R	5629	RESEARCH SCIENTIST V (EPIDEMIOLOGY/BIOSTATISTICS)	R	5629	
R	5631	RESEARCH SCIENTIST V (FOOD AND DRUG SCIENCES)	R		
R	5634	RESEARCH SCIENTIST V (MICROBIOLOGICAL SCIENCES)	R		
R	5635	RESEARCH SCIENTIST V (PHYSICAL/ENGINEERING SCIENCE)	R		
R	5636	RESEARCH SCIENTIST V (SOCIAL/BEHAVIORAL SCIENCES)	R		
R	5637	RESEARCH SCIENTIST V (VETERINARY SCIENCES)	R		
R	5608	RESEARCH SCIENTIST IV (CHEMICAL SCIENCES)	R		Senior Research Scientist
R	5609	RESEARCH SCIENTIST IV (EPIDEMIOLOGY/BIOSTATISTICS)	R	5609	
R	5611	RESEARCH SCIENTIST IV (FOOD AND DRUG SCIENCES)	R		
R	5612	RESEARCH SCIENTIST IV (MICROBIOLOGICAL SCIENCES)	R		
R	5613	RESEARCH SCIENTIST IV (PHYSICAL/ENGINEERING SCIENCES)	R		
R	5622	RESEARCH SCIENTIST IV (SOCIAL/BEHAVIORAL SCIENCES)	R		
R	5625	RESEARCH SCIENTIST IV (VETERINARY SCIENCES)	R		
R	5591	RESEARCH SCIENTIST III (CHEMICAL SCIENCES)	R		Staff Research Scientist
R	5594	RESEARCH SCIENTIST III (EPIDEMIOLOGY/BIOSTATISTICS)	R	5594	
R	5596	RESEARCH SCIENTIST III (FOOD AND DRUG SCIENCES)	R		
R	5599	RESEARCH SCIENTIST III (MICROBIOLOGICAL SCIENCES)	R		
R	5604	RESEARCH SCIENTIST III (PHYSICAL/ENGINEERING SCIENCES)	R		
R	5605	RESEARCH SCIENTIST III (SOCIAL/BEHAVIORAL SCIENCES)	R		
R	5606	RESEARCH SCIENTIST III (VETERINARY SCIENCES)	R		
R	5581	RESEARCH SCIENTIST II (CHEMICAL SCIENCES)	R		Research Scientist, Range B
R	5582	RESEARCH SCIENTIST II (EPIDEMIOLOGY/BIOSTATISTICS)	R	5582	
R	5585	RESEARCH SCIENTIST II (FOOD AND DRUG SCIENCES)	R		
R	5587	RESEARCH SCIENTIST II (MICROBIOLOGICAL SCIENCES)	R		
R	5588	RESEARCH SCIENTIST II (PHYSICAL/ENGINEERING SCIENCES)	R		
R	5590	RESEARCH SCIENTIST II (SOCIAL/BEHAVIORAL SCIENCES)	R		
R	5576	RESEARCH SCIENTIST I (CHEMICAL SCIENCES)	R		Research Scientist, Range A
R	5577	RESEARCH SCIENTIST I (EPIDEMIOLOGY/BIOSTATISTICS)	R		
R	5578	RESEARCH SCIENTIST I (MICROBIOLOGICAL SCIENCES)	R		
R	5579	RESEARCH SCIENTIST I (PHYSICAL/ENGINEERING SCIENCES)	R		
R	5580	RESEARCH SCIENTIST I (SOCIAL/BEHAVIORAL SCIENCES)	R		