

**IRRIGATION SPECIALIST**

| **Reports to:**  | Grounds Supervisor |  |  |
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| **Dept:** | Grounds | **Range:** | 20 |
| **FLSA:** | Nonexempt | **EEO:** | Service and Maintenance |

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed by individual positions.*

### BASIC FUNCTION:

Under general supervision, perform a variety of journeyman level landscape construction and grounds maintenance work related to irrigation plumbing, irrigation electrical, irrigation system design, landscape and plant material design, landscape and irrigation installation, landscape carpentry, and landscape and irrigation maintenance; apply pesticides, fertilizers and other chemicals to vegetation and grounds; operate a wide variety of power equip­ment and machinery; assist with event setup and cleanup; and perform related duties as assigned.

### ESSENTIAL DUTIES & RESPONSIBILITIES:

*The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.*

1. Install, maintain, repair and troubleshoot all grounds irrigation systems; inspect and evaluate the operation of existing irrigation systems, irrigation controllers, irrigation mains, fire mains and fire hydrants and prioritize their maintenance; install, repair or modify existing valves, controllers, irrigation systems, irrigation electrical wiring, irrigation mains and laterals; utilize, amend or update existing irrigation blueprints as necessary; remain current on new irrigation technologies and soft­ware applications to ensure efficient and economical irrigation systems.
2. Program irrigation controllers through either the centralized irrigation system or manually programming other controllers utilizing proper water-management skills and budget­ing procedures according to evapo-transpiration (ET); maintain and operate the web-based centralized irrigation program including making all the computerized controller program changes to irrigation schedules utilizing the onsite weather stations; coordinate all irrigation scheduling around campus activities.
3. Design, plan and install new landscape and irrigation projects maintaining proper flow, gallons per minute (GPM) and pounds per square inch (PSI) in any given area; perform journeyman level landscape installation and construction; evaluate soil and other relevant conditions.
4. Assist with landscape maintenance as needed including irrigating, trimming, edging, aerating, mowing, fertilizing and renovating lawns and turfed areas; irrigate, feed, spray and cultivate around trees, shrubs and hedges; maintain grounds including weeding, raking and maintaining assigned areas in a clean, safe and orderly condition; assist with maintaining athletic fields and with refuse abatement.
5. Coordinate with the Lead Groundskeeper to diagnose disease and pest conditions; spray landscaped areas with toxic herbicides, insecticides, fungicides and rodenticides; prepare chemical mixtures in proper proportions; locate, trap and bait rodents; maintain accurate pesticide-use records according to federal, state and county regulations.
6. Construct, repair, resurface and maintain concrete and asphalt walkways, curbs and ramps; mix and pour concrete; assist in planning, preparing and maintaining overflow parking areas.
7. Maintain and assist in repairing tools, small power equipment, large construction and main­tenance equipment and machinery; may design, fabricate and weld as needed.
8. Maintain daily work records, hazardous-materials records and restricted pesticide-use records; maintain fuel-consumption records, parts and materials inventory and work orders; attend meetings; participate in safety training.

###  OTHER DUTIES:

1. Interface with contractors, vendors and architects during the design and installation of land­scape projects as assigned.
2. Perform general duties such as installing traffic-control sign posts and setting up for campus events and outdoor classrooms as needed.
3. Provide work direction and guidance to gardeners/groundskeepers on an assigned project, student workers and San Diego County Probation Department workers as assigned.
4. Ensure the proper supplies are stored to maintain campus grounds; report supplies and parts that need to be ordered and/or requisition supplies and parts as designated.
5. Perform related duties as assigned.

### KNOWLEDGE AND ABILITIES:

### KNOWLEDGE OF:

1. Methods and materials used in the installation, maintenance, diagnostics and repair of automatic irrigation systems including various controllers, valves and heads.
2. Design and layout of irrigation systems utilizing proper hydrodynamics to ensure accurate function and the proper selection of pipe and fitting sizes and specifications to ensure adequate volume and pressure.
3. Proper methods of pipefitting as related to irrigation installation.
4. Equipment and tools required in irrigation repair and installation.
5. Operation of hand and power tools and ground equipment used in the irrigation and landscape trades.
6. Water conservation techniques applicable to the operation of all irrigation systems.
7. Environmental sustainability standards and practices including the selection of drought- tolerant plants and the utilization of Best Management Practices (BMP’s) techniques to control storm water and irrigation runoff management.
8. Landscape design techniques concerning irrigation, drainage and plant identification.
9. Electrical wiring relating to irrigation controllers, flow sensors, data links, communication cards, relays, master valves and remote automatic valves.
10. Grounds maintenance procedures including mowing, edging, raking and weeding.
11. Methods of planting, propagating, cultivating, fertilizing, watering and spraying lawns, flowers, trees and shrubs.
12. Methods and materials used in controlling pests, insects and weeds and a working knowledge of implementing Integrated Pest Management.
13. State and local water restriction guidelines and other relevant laws, codes and restrictions.
14. Safety hazards and necessary safety precautions/policies sufficient to establish a safe work environment for self and others.
15. Shop mathematics.
16. Written and oral communication skills including correct English usage, grammar, spelling, punctuation and vocabulary.
17. Uses and operations of computers, standard business software and specialized database and spreadsheet applications.
18. Basic recordkeeping techniques.
19. District organization, functions, rules, policies and procedures applicable to assigned areas of responsibility.

### ABILITY TO:

1. Plan, layout, install and repair manual and automatic irrigation systems.
2. Operate tools and equipment used in the installation, repair and maintenance of grounds and irrigation systems.
3. Read and interpret blueprints of landscape irrigation systems and landscape architecture.
4. Perform journeyman level grounds maintenance duties including prioritizing and scheduling work on campus grounds and athletic fields.
5. Mix and apply specialized chemicals to control and eradicate weeds, insects and other pests.
6. Safely operate a variety of grounds maintenance equipment including tractors, tractor towed/PTO powered mowers, skip loader, scraper, grader, ditcher, power edger, chipper, power sweeper, turf vacuum, man lift, forklift, electric and gas carts, riding mower, backhoe, trencher, skid steer, boom truck and dump truck.
7. Estimate time, materials and equipment required to perform assigned duties.
8. Prepare and maintain records accurately.
9. Operate a computer related to area of assignment.
10. Communicate effectively, both orally and in writing.
11. Understand and follow written and oral instructions.
12. Establish and maintain effective working relationships with all those encountered in the course of work.

### EDUCATION AND EXPERIENCE:

Graduation from high school or GED equivalent with additional course work in horticulture, landscaping or a related field, and four years of directly related experience in large-scale landscape irrigation or landscape construction; or an equivalent combination of training and experience.

### LICENSES AND OTHER REQUIREMENTS:

A valid California driver’s license and the ability to maintain insurability under the district’s vehicle insurance program.

Qualified Applicator’s Certificate issued by the California Department of Pesticide Regulation is required within six months of appointment and must be maintained as a condition of employ­ment.

Backhoe safety training and forklift safety training.

**WORK DIRECTION, LEAD AND SUPERVISORY RESPONSIBILITIES:**

Work direction, training and guidance to Groundskeepers, student workers and/or temporary staff as assigned.

**CONTACTS:**

District administrators, faculty, staff, students, contractors, vendors, trade professionals, architects, Campus Police personnel and the general public.

**PHYSICAL EFFORT:**

*The physical efforts described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

Heavy physical labor with constant standing and walking for extended periods; walking over rough or uneven surfaces; frequent pushing, pulling, lifting and carrying of heavy objects weigh­ing up to 75 pounds; frequent bending, stooping and kneeling; repetitive use of upper extrem­ities on a regular basis; manual dexterity to safely operate motorized equipment and vehicles; ability to operate an electric cart to pick up/deliver supplies to various locations on campus; ability to travel to a variety of locations on and off campus as needed to conduct district business.

**EMOTIONAL EFFORT:**

Ability to develop and maintain effective working relationships involving interactions and com­munications personally, by phone and in writing with a variety of individuals and/or groups from diverse backgrounds on a regular, ongoing basis; ability to effectively work alone or as a crew member; ability to work effectively under pressure on a variety of tasks concurrently while meeting established deadlines and changing priorities.

**WORKING CONDITIONS:**

Outside environment in weather conditions including rain and extreme heat; exposure to sun for extended periods of time; work on slippery or uneven surfaces; work while wearing personal protection equipment including respirators, protective gloves, protective footwear, face shields, goggles, spray suits and rain suits; subject to exposure to dust, dirt, oil/grease, gasoline, diesel fuel, smoke and pollen; subject to exposure to hazardous materials such as pesticides, herbi­cides, solvents and other toxic chemicals and fumes; exposure to extreme noise and fumes/ exhaust from equipment and vehicle operation; work with or around extremely dangerous equipment and machinery with moving parts. May be required to work at any district location with occasional evenings, holidays and/or weekends on an as-needed basis; occasional local travel may be requested.