

Division of Apprenticeship Standards (DAS)

Apprenticeship Program Summary Sheet

To: Adele Burnes, Chief
From: Miguel Silva
CC: Program Planning and Review
Date: December 3, 2024

Program Name: Open Source Agriculture Apprenticeships
Industry: Agriculture
DAS File No.: 101326
Grant Awardee: ☒ No ☐ Yes

Actions:

- ☒ Proposed new apprentice program
- ☐ Existing apprenticeship program adding new occupations
- ☐ Existing apprenticeship program expanding area of operations
- ☐ Existing apprenticeship program changing work processes on approved occupations.

Labor Organizations Representing Any of the Apprentices:

None

Request for Approval under Labor Code 3075:

Open Source Agriculture Apprenticeships is not intended to train in the building and construction trades and is not eligible to dispatch apprentices to projects with public works, prevailing wage or skilled and trained workforce requirements within the meaning of Labor Code sections 1720 and 3075 and will not train or dispatch apprentices in the building and construction trades or firefighters occupations.

Comments:

Open Source Agriculture Apprenticeships will mentor apprentices as Regenerative Ag, Agriculture, and Precision Ag Technicians, and Environmental Science and Protection or Forest and Conservation Technicians. These occupations weave business, technology, farming, and environmental practices to embrace interesting and meaningful careers focused on current and future food providers, stewards of land, and sustainable, profitable businesses.

Open Source Agriculture Apprenticeships will oversee the apprenticeship program herein and seeks approval from the Department of Industrial Relations, Division of Apprenticeship Standards for the following:

Proposed Occupation, Wage Rate & O*Net Code:

- Agriculture Technicians
Professional Worker Wage: \$22.00 per hour
Proposed Apprentice Wage: \$20.50 per hour
Proposed No. of Apprentices: 4
O*Net: 19-4012.00
- Regenerative Agricultural Technicians
Professional Worker Wage: \$22.00 per hour
Proposed Apprentice Wage: \$20.50 per hour
Proposed No. of Apprentices: 4
O*Net: 19-4012.00
- Environmental Science and Protection Technicians
Professional Worker Wage: \$22.00 per hour
Proposed Apprentice Wage: \$20.50 per hour
Proposed No. of Apprentices: 4
O*Net: 19-4042.00
- Precision Agriculture Technicians
Professional Worker Wage: \$22.00 per hour
Proposed Apprentice Wage: \$20.50 per hour
Proposed No. of Apprentices: 3
O*Net: 19-4012.01
- Forest and Conservation Technicians
Professional Worker Wage: \$22.00 per hour
Proposed Apprentice Wage: \$20.50 per hour
Proposed No. of Apprentices: 3
O*Net: 19-4071.00

Proposed Employers:

- Elationscapes - 6447 Webster Road, Creston, CA 93432

Open Source Agriculture Apprenticeships Program Standards

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Article I Purpose and Policy

The parties hereto declare it to be their purpose and policy to establish an organized, planned system of apprenticeship, conducted as an education sponsored, employer-based undertaking.

These standards have, therefore, been adopted and agreed upon under the Shelley-Maloney Apprentice Labor Standards Act of 1939, as amended, to govern the employment and training of apprentices in the trade, craft or occupation defined herein, to become effective upon their approval.

Article II Craft, Trade or Occupation, Related and Supplemental Instruction, Term of Apprenticeship, Ratio, Wage Schedule and Work Training

Occupation	O*Net Code	Attachment
Agriculture Technicians	19-4012.00	B-1
Regenerative Agricultural Technicians	19-4012.00	B-2
Environmental Science and Protection Technicians	19-4042.00	B-3
Precision Agriculture Technicians	19-4012.01	B-4
Forest and Conservation Technicians	19-4071.00	B-5

Article III Organization

For each employer participating in this program, an "Employer Agreement" (See Attachment D) will be provided to specify the information particular to that employer as noted herein, including the option to waive or offer participation on the committee, employer committee members will be selected as outlined in the rules & regulations.

Article IV Jurisdiction

These standards shall apply to the employer and employee organizations signatory hereto; their members, to other employers who subscribe hereto or who are party to a collective bargaining agreement with an employee organization(s) signatory hereto, and to all apprentice agreements hereunder.

Article V Functions

The functions of the apprenticeship committee shall be to:

- 1) develop an efficient program of apprenticeship through systematic on-the-job training with related and supplemental instruction and periodic evaluation of each apprentice;
- 2) serve in an advisory capacity with employers and employees in matters pertaining to these standards;
- 3) ensure the program's ability, including financial ability, and commitment to meet and carry out its responsibilities under federal and state law and regulations applicable to the apprenticeable occupation and for the welfare of the apprentice;
- 4) aid in the adjustment of apprenticeship disputes;
- 5) develop fair and impartial selection procedures and an affirmative action plan in accordance with existing laws and regulations and apply them uniformly in the selection of applicants for apprenticeship.

Article VI Responsibilities

The responsibilities of the apprenticeship committee shall be to:

- 1) supervise the administration and enforcement of these standards;
- 2) adopt such rules and regulations as are necessary to govern the program provided that the rules and regulations do not conflict with these standards;
- 3) conduct orientations, workshops or other educational sessions for employers to explain the apprenticeship program's standards and the operation of the apprenticeship program;
- 4) pass upon the qualification of employers and, when appropriate, to suspend or withdraw approval;
- 5) conduct on-going evaluation of the interest and capacity of employers to participate in the apprenticeship program and to train apprentices on the job;
- 6) make periodic evaluations of each apprentices on-the-job training and related and supplemental instruction;
- 7) ensure safe work site facilities, skilled workers as trainers at the work site, and safe equipment sufficient to train apprentices;
- 8) determine the qualifications of apprentice applicants and ensure fair and impartial treatment of applicants for apprenticeship selected through uniform selection procedures;
- 9) file a signed copy, written or electronic, of each apprentice agreement with the Division of Apprenticeship Standards, within 30 days of execution, with copies to all parties to the agreement;
- 10) establish and utilize a procedure to record and maintain all records of the apprentice's worksite job progress and progress in related and supplemental instruction;

- 11) establish and utilize a system for the periodic review and evaluation of the apprentice's progress in job performance and related instruction;
- 12) discipline apprentices, up to and including termination, for failure to fulfill their obligations on-the-job or in related instruction, including provisions for fair hearings;
- 13) annually prepare and submit a Self-Assessment Review as well as a Program Improvement Plan to the Chief of the Division of Apprenticeship Standards;
- 14) ensure training and supervision, both on the job and in related instruction, in first aid, safe working practices and the recognition of occupational health and safety hazards;
- 15) ensure training in the recognition of illegal discrimination and sexual harassment;
- 16) establish an adequate mechanism to be used for the rotation of the apprentice from work process to work process to ensure the apprentice of complete training in the apprenticeable occupation including mobility between employers when essential to provide exposure and training in various work processes in the apprenticeable occupation;
- 17) establish an adequate mechanism that will be used to provide apprentices with reasonably continuous employment in the event of a lay-off or the inability of one employer to provide training in all work processes as outlined in the standards;
- 18) comply with meaningful representation requirements for the interests of apprentices in the management of the program where apprentices are at least equally represented on an advisory panel established by the apprenticeship committee responsible for the operation of the program;
- 19) adopt changes to these standards, as necessary, subject to the approval of the parties hereto and the Chief of the Division of Apprenticeship Standards.

Article VII Definition of an Apprentice

An apprentice is a person at least 16 years of age, who has met the requirements for selection under the selection procedures of participating employer, who is engaged in learning a designated craft or trade and who has entered into a written apprentice agreement under the provisions of these standards.

Article VIII Duties of an Apprentice

Each apprentice shall satisfactorily perform all work and learning assignments both on the job and in related instruction and shall comply with the rules, regulations and decisions of the apprenticeship committee.

Article IX Apprentice Agreement

- 1) Each apprentice agreement shall conform to the State law governing apprentice agreements, and shall be signed by the employer, by the program sponsor, and by the apprentice and must be approved by the apprenticeship committee.
- 2) Each apprentice shall be furnished a copy of or be given an opportunity to study these standards before registration. These standards shall be considered a part of the apprentice agreement as though expressly written therein.
- 3) If the apprentice is under 18 years of age, the agreement must be signed by the apprentice's parent or guardian. When the period of training extends beyond 18, the apprentice agreement shall likewise be binding to such a period as may be covered.

Article X Termination and Transfer of Agreements

- 1) During the probationary period, an apprentice agreement shall be terminated by the apprenticeship committee at the request in writing of either party. After such probationary period, an apprentice agreement may be terminated by the Administrator by mutual agreement of all the parties thereto or cancelled by the Administrator for good and sufficient reason.
- 2) If an employer is unable to fulfill his/her obligations to train under any apprentice agreement or in the event of a layoff, the apprenticeship committee may, with the approval of the Administrator, transfer such agreement to any other employer if the apprentice consents, and such other employer agrees to assume the obligation of said apprentice agreement.

Article XI Lay-off

- 1) If for any reason a lay-off of an apprentice occurs, the apprentice agreement shall remain in effect unless cancelled by the Administrator. However, credit for related instruction shall be given when the apprentice continues such instruction during the lay-off.
- 2) There shall be no liability on the part of the employer, the program, or the committee for an injury sustained by an apprentice engaged in schoolwork at a time when the apprentice is unemployed.

Article XII Controversies

All controversies or differences concerning apprentice agreements that cannot be adjusted locally by the apprenticeship committee or otherwise shall be submitted to the Administrator for determination.

Article XIII Certificate of Completion

- 1) In addition to previous on-the-job training and related school instruction, which is of an approved nature, the Apprentice shall have completed not less than an additional six (6) months as an apprentice under the laws of the State of California and demonstrated mastery of the skills and knowledge of the prescribed program.
- 2) In recognition of unusual ability and progress, the apprenticeship committee may decrease the term of apprenticeship for an individual apprentice not more than twelve and one-half percent (12½%).
- 3) Upon evidence of satisfactory completion of apprenticeship, and upon the recommendation of the apprenticeship committee, each apprentice will be issued a Certificate of Completion by the authority of the Chief of the Division of Apprenticeship Standards and the Interagency Advisory Committee on Apprenticeship.

Article XIV Equal Opportunity in Apprenticeship

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation or veteran or military status.

Open Source Agriculture Apprenticeships will ensure selection procedures meet objective standards and maintain a fair and equitable selection process for all applicants.

Article XV Written Applications

Applications can be requested and will be accepted via the website portal:
<https://www.opensourceagriculture.org/apprenticeships/>

Article XVI Records

All records will be maintained, in written or electronic form, for five years and kept at:

Open Source Agriculture Apprenticeships
2620 Gray Hawk Way, San Miguel, CA 93451

Article XVII Annual Compliance

Open Source Agriculture Apprenticeships will submit an annual compliance report to the Division of Apprenticeship Standards as requested by the Division.

Open Source Agriculture Apprenticeships agrees to accept electronic signatures for these Division of Apprenticeship Standards and all related Division of Apprenticeship Standards documents.

The foregoing standards are hereby agreed to and adopted by Open Source Agriculture Apprenticeships on October 16, 2024 (Committee approval date).

Employer Organization

Open Source Agriculture Apprenticeships
2620 Gray Hawk Way, San Miguel, CA 93451

Kelly Cooper, Director/President

Date

The foregoing apprenticeship standards, being in conformity with the applicable California Labor Code, California Code of Regulations and Federal Regulations, are hereby approved

_____.
(DAS approval date)

Adele Burnes, Chief
Division of Apprenticeship Standards

Date

Attachment B-1

Training Schedule and Working Conditions

Open Source Agriculture Apprenticeships

Occupation

Occupation: Agriculture Technicians

O*Net Code: 19-4012.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency based with 150 related and supplemental instruction (RSI) hours and completed within approximately 12 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be 1.5 months.

Article II Wage Schedule

Professional Worker Wage:

\$ 22.00 per hour effective 10/14/2024.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	0% Competencies	\$ 20.50 /hour
2nd period	50% Competencies	\$ 21.25 /hour
End Wage	100% Competencies	\$ 22.00 /hour

Hours of Work and Working Conditions and Overtime Provision:

Eight hours of labor constitutes a day's work. Employment beyond eight hours in any workday or more than six days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight hours, up to and including 12 hours in any workday, and for the first eight hours worked on the seventh consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of a professional worker.

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
- 3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Competencies:

1. Record data pertaining to experimentation, research, or animal care.
2. Collect animal or crop samples. Examine animals or crop specimens to determine the presence of diseases or other problems.
3. Support pest or weed control operations, including locating and identifying pests or weeds, selecting chemicals and application methods, or scheduling application.
4. Perform crop production duties, such as tilling, hoeing, pruning, weeding, or harvesting crops.
5. Perform general nursery duties, such as propagating standard varieties of plant materials, collecting and germinating seeds, maintaining cuttings of plants, or controlling environmental conditions.
6. Transplant trees, vegetables, or horticultural plants. Care for plants or animals.
7. Determine the germination rates of seeds planted in specified areas.
8. Assess comparative soil erosion from various planting or tillage systems, such as conservation tillage with mulch or ridge till systems, no-till systems, or conventional tillage systems with or without moldboard plows.
9. Research sustainable agricultural processes or practices and crop management methods.
10. Research diseases or parasites.
11. Test quality of materials or finished products.
12. Project Management Software —Microsoft Teams: Utilize Microsoft Teams and Outlook to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.
13. Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.
14. Utilize graphics, photo imaging, or mapping software to communicate and share information.

15. Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
16. Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.
17. Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.
18. Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
19. Establishing and Maintaining Interpersonal Relationships — Developing constructive and cooperative working relationships with others.
20. Communicating with People Outside the Organization — Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources.

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 144 hours per year. Related and supplemental instruction will be provided by Open Source Agriculture Apprenticeships and overseen by Downey Unified School District, Glendale Unified School District, Davis Joint Unified School District, and Winters Joint Unified School District.

Time spent in related and supplemental instruction may not be compensated.

<u>Course Title</u>	<u>Hours</u>
Agriculture Technician Skills	60 Hours
Microsoft Office Suite	15 Hours
Technology	15 Hours
Communication	20 Hours
Analysis	20 Hours
Operations	20 Hours
<u>Total RSI</u>	<u>150 Hours</u>

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise four (4) apprentice(s)

Attachment B-2

Training Schedule and Working Conditions

Open Source Agriculture Apprenticeships

Occupation

Occupation: Regenerative Agricultural Technicians

O*Net Code: 19-4012.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency based with 150 related and supplemental instruction (RSI) hours and completed within approximately 12 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be 1.5 months.

Article II Wage Schedule

Professional Worker Wage:

\$ 22.00 per hour effective 10/14/2024.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	0% Competencies	\$ 20.50/hour
2nd period	50% Competencies	\$ 21.25/hour
End Wage	100% Competencies	\$ 22.00/hour

Hours of Work and Working Conditions and Overtime Provision:

Eight hours of labor constitutes a day's work. Employment beyond eight hours in any workday or more than six days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight hours, up to and including 12 hours in any workday, and for the first eight hours worked on the seventh consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

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ARTICLE III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
- 3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Competencies:

1. Support farm management tasks, including livestock care, pasture moves, garden harvesting, and crop planting.
2. Practice farming methods that restore ecosystems while producing food, such as organic farming, permaculture principles, and agroforestry systems.
3. Research diseases, pests, or parasites and practice regenerative methods for control.
4. Plan and implement holistic farm management using frameworks like Holistic Management, Keyline Design, and Permaculture principles.
5. Practice small-scale vegetable production and intensive farming methods.
6. Test, augment, and measure soil biology and soil health.
7. Plant, harvest, and maintain vegetable gardens and orchards.
8. Use tractors, mowers, and other machinery for various farm tasks.
9. Set up and maintaining water systems for efficient resource use.
10. Manage compost piles to create natural fertilizers.
11. Project Management Software —Microsoft Teams: Utilize Microsoft Teams and Outlook to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.
12. Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.
13. Utilize Geographic Information Systems (GIS) to communicate and share data.
14. Utilize graphics, photo imaging, or mapping software to communicate and share information.
15. Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.

16. Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.
17. Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.
18. Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
19. Establishing and Maintaining Interpersonal Relationships — Developing constructive and cooperative working relationships with others.
20. Communicating with People Outside the Organization — Communicating with people outside the organization, representing the organization to customers, the public, government, or other external sources.

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 144 hours per year. Related and supplemental instruction will be provided by Open Source Agriculture Apprenticeships and overseen by Downey Unified School District, Glendale Unified School District, Davis Joint Unified School District, and Winters Joint Unified School District.

Time spent in related and supplemental instruction may not be compensated.

<u>Course Title</u>	<u>Hours</u>
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Technology	15 Hours
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<u>Total RSI</u>	<u>150 Hours</u>

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise four (4) apprentice(s)

Attachment B-3

Training Schedule and Working Conditions

Open Source Agriculture Apprenticeships

Occupation

Occupation: Environmental Science and Protection Technicians

O*Net Code: 19-4042.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency based with 150 related and supplemental instruction (RSI) hours and completed within approximately 12 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be 1.5 months.

Article II Wage Schedule

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2nd period	50% Competencies	\$ 21.25 /hour
End Wage	100% Competencies	\$ 22.00 /hour

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ARTICLE III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
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Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Competencies:

1. Collect samples of gases, soils, water, industrial wastewater, or asbestos products to conduct tests on pollutant levels or identify sources of pollution.
2. Record test data and prepare summaries or charts that interpret test results.
3. Prepare samples for testing and analysis. Discuss test results and analyses with team members.
4. Weigh, analyze, or measure collected sample particles, such as lead, coal dust, or rock, to determine concentration of pollutants.
5. Calibrate microscopes or test instruments.
6. Maintain files, such as hazardous waste databases, chemical usage data, personnel exposure information, or diagrams showing equipment locations.
7. Support set up of equipment or stations to monitor and collect pollutants from sites, such as smokestacks, manufacturing plants, or mechanical equipment.
8. Monitor emission control devices to ensure they are operating properly and comply with state and federal regulations.
9. Learn about amounts and kinds of chemicals to use in destroying harmful organisms or removing impurities from purification systems.
10. Project Management Software —Microsoft Teams: Utilize Microsoft Teams and Outlook to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.
11. Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.
12. Utilize Geographic Information Systems (GIS) to communicate and share data.
13. Utilize graphics, photo imaging, or mapping software to communicate and share information.
14. Utilize public and private databases and artificial intelligence to gather information related to pollution and conservation.

15. Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
16. Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.
17. Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.
18. Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
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<u>Course Title</u>	<u>Hours</u>
Environmental Science and Protection Skills	40 Hours
Microsoft Office Suite	20 Hours
Technology	30 Hours
Communication	20 Hours
Analysis	20 Hours
Operations	20 Hours
<u>Total RSI</u>	<u>150 Hours</u>

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise four (4) apprentice(s)

Attachment B-4

Training Schedule and Working Conditions

Open Source Agriculture Apprenticeships

Occupation

Occupation: Precision Agriculture Technicians

O*Net Code: 19-4012.01

Article I Term of Apprenticeship and Probation

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Article II Wage Schedule

Professional Worker Wage:

\$ 22.00 per hour effective 10/14/2024.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	0% Competencies	\$ 20.50 /hour
2nd period	50% Competencies	\$ 21.25 /hour
End Wage	100% Competencies	\$ 22.00 /hour

Hours of Work and Working Conditions and Overtime Provision:

Eight hours of labor constitutes a day's work. Employment beyond eight hours in any workday or more than six days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight hours, up to and including 12 hours in any workday, and for the first eight hours worked on the seventh consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of a professional worker.

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
- 3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Competencies:

1. Document and maintain records of precision agriculture information.
2. Collect information about soil or field attributes, yield data, or field boundaries, using field data recorders and basic geographic information systems (GIS).

3. Use geospatial technology to develop soil sampling grids or identify sampling sites for testing characteristics such as nitrogen, phosphorus, or potassium content, pH, or micronutrients.
4. Test, augment, and measure soil biology and soil health.
5. Divide agricultural fields into georeferenced zones, based on soil characteristics and production potentials.
6. Install, calibrate, or maintain sensors, mechanical controls, GPS-based vehicle guidance systems, or computer settings.
7. Contact equipment manufacturers for technical assistance, as needed.
8. Set up and maintain water systems for efficient resource use.
9. Create, layer, and analyze maps showing precision agricultural data, such as crop yields, soil characteristics, input applications, terrain, drainage patterns, or field management history.
10. Analyze geospatial data to determine agricultural implications of factors such as soil quality, terrain, field productivity, fertilizers, or weather conditions.
11. Demonstrate the applications of geospatial technology, such as Global Positioning System (GPS), geographic information systems (GIS), automatic tractor guidance systems, variable rate chemical input applicators, surveying equipment, or computer mapping software.
12. Draw or read maps, such as soil, contour, or plat maps.
13. Project Management Software — Microsoft Teams: Utilize Microsoft Teams and Outlook to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.
14. Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.
15. Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
16. Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.
17. Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.
18. Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

19. Establishing and Maintaining Interpersonal Relationships — Developing constructive and cooperative working relationships with others.
20. Communicating with People Outside the Organization — Communicating with people outside the organization, representing the organization to customers, the public, government, or other external sources.

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 144 hours per year. Related and supplemental instruction will be provided by Open Source Agriculture Apprenticeships and overseen by Downey Unified School District, Glendale Unified School District, Davis Joint Unified School District, and Winters Joint Unified School District.

Time spent in related and supplemental instruction may not be compensated.

<u>Course Title</u>	<u>Hours</u>
Precision Agriculture Technician Skills	60 Hours
Microsoft Office Suite	15 Hours
Technology	15 Hours
Communication	20 Hours
Analysis	20 Hours
Operations	20 Hours
<u>Total RSI</u>	<u>150 Hours</u>

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise four (4) apprentice(s)

Attachment B-5

Training Schedule and Working Conditions

Open Source Agriculture Apprenticeships

Occupation

Occupation: Forest and Conservation Technicians

O*Net Code: 19-4071.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency based with 150 related and supplemental instruction (RSI) hours and completed within approximately 12 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be 1.5 months.

Article II Wage Schedule

Professional Worker Wage:

\$ 22.00 per hour effective 10/14/2024.

Apprentice Wage and Advancement Schedule:

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Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Competencies:

1. Thin and space trees and control weeds and undergrowth, using manual tools and chemicals.
2. Support seasonal activities, such as planting tree seedlings, putting out forest fires, and maintaining recreational facilities.
3. Learn about regulations, such as those concerning environmental protection, resource utilization, fire safety, and accident prevention.
4. Map forest tract data using digital mapping systems. Measure distances, clean sightlines, and record data to help survey crews.
5. Support forest protection activities, including fire control, fire crew training, and fire detection public education programs.
6. Perform reforestation or forest renewal, including nursery and silviculture operations, site preparation, seeding and tree planting programs, cone collection, and tree improvement.
7. Inspect trees and collect samples of plants, seeds, foliage, bark, and roots to locate insect and disease damage.
8. Measure distances, clean sightlines, and record data to help survey crews.
9. Support laboratory or field experiments with plants, animals, insects, diseases, and soils.
10. Install gauges, stream flow recorders, and soil moisture measuring instruments, and collect and record data from them to assist with watershed analysis.
11. Project Management Software —Microsoft Teams: Utilize Microsoft Teams and Outlook to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.
12. Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.
13. Utilize Geographic Information Systems (GIS) to communicate and share data.
14. Utilize public and private databases and artificial intelligence to gather information related to pollution and conservation.

15. Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
16. Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.
17. Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.
18. Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
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<u>Course Title</u>	<u>Hours</u>
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