



Work Process Schedule

Precision Agricultural Technicians	
Job Description: Apply geospatial technologies, including geographic information systems (GIS) and Global Positioning System (GPS), to agricultural production or management activities, such as pest scouting, site-specific pesticide application, yield mapping, or variable-rate irrigation. May use computers to develop or analyze maps or remote sensing images to compare physical topography with data on soils, fertilizer, pests, or weather.	
RAPIDS Code: 3095CB	O*NET-SOC Code: 19-4012.01
Estimated Program Length: 2000 hours	
Apprenticeship Type: ☒ Competency-Based ☐ Time-Based ☐ Hybrid	

On-the-Job Learning Outline

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.
	Demonstrates Fundamentals	Proficient in Task	Completion Date/Initials
Document and maintain records of precision agriculture information.			
Collect information about soil or field attributes, yield data, or field boundaries, using field data recorders and basic geographic information systems (GIS).			
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.			
Test, augment, and measure soil biology			



and soil health.			
Divide agricultural fields into georeferenced zones, based on soil characteristics and production potentials.			
Install, calibrate, or maintain sensors, mechanical controls, GPS-based vehicle guidance systems, or computer settings.			
Contact equipment manufacturers for technical assistance, as needed.			
Set up and maintain water systems for efficient resource use.			
Create, layer, and analyze maps showing precision agricultural data, such as crop yields, soil characteristics, input applications, terrain, drainage patterns, or field management history.			
Analyze geospatial data to determine agricultural implications of factors such as soil quality, terrain, field productivity, fertilizers, or weather conditions.			
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.			
Draw or read maps, such as soil, contour, or plat maps.			
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.			
Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.			
Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.			



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



Related Core Subjects

Provider	
Name: Open Source Ag	
Address: 2620 Gray Hawk Way, San Miguel, CA 93451	
Email: kelly@opensource.ag	Phone Number: (559) 670-0352
Suggested Related Instruction Hours: 150	

Course Title	Contact Hours
Precision Agriculture Technician Skills	60
Microsoft Office Suite	15
Technology	15
Communication	20
Analysis	20
Operations	20
TOTAL	150

See class information attached