



Occupation: Precision Agriculture Technicians

[O*NET Code: 19-4012.01](#)

Related Supplemental Instruction (RSI)

Unpaid, facilitated by Open Source Ag 501(c)(3):

Time spent in related and supplemental instruction may not be compensated per CA DAS and US DOL. For details on these hours, please see the RSI example document.

Precision Agriculture Technician Skills	60 hours
Microsoft Office Suite	15 hours
Technology	15 hours
Communication	20 hours
Analysis	20 hours
Operations	20 hours
Total Related Supplemental Instruction Hours	150 hours

Competencies - On-the-Job Training (paid):

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 — Use Microsoft Office Suite to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.
14. Spreadsheet software — 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.