# USDOL information and resources to support Geospatial workforce development

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USDOL/Employment and Training Administration

# USDOL information and resources to support Geospatial workforce development

- Geospatial Technology competency model on the **Competency Model Clearinghouse**

- Four (4) new **O*NET occupations** with full descriptions

- Discretionary **grants to support curriculum development**

# Competency Model Clearinghouse

# Geospatial Technology Competency Model

**features**

- User Guides
- Find Resources
- Models in Action
- Industry Competency Models
- Tools

**exploringindustries**

- Advanced Manufacturing
- Aerospace
- Automation
- Bioscience
- Construction - Commercial
- Construction - Heavy
- Construction - Residential
- Cybersecurity
- Energy
- Entrepreneurship
- Financial Services
- Geospatial Technology
- Health: Allied Health
- Health: Electronic Health Records
- Hospitality/Hotel and Lodging
- Information Technology
- Long-term Care, Supports, and Services
- Mechatronics
- Renewable Energy
- Retail
- Transportation, Distribution, and Logistics
- Water Sector

**relatedlinks:**

- Industry Association Links
- Geospatial Management Competency Model
- GeoTech Center Home Page
- Future U.S. Workforce for Geospatial Intelligence
- ETA Investments
- Pre-Workshop Webinar

**helpline:**

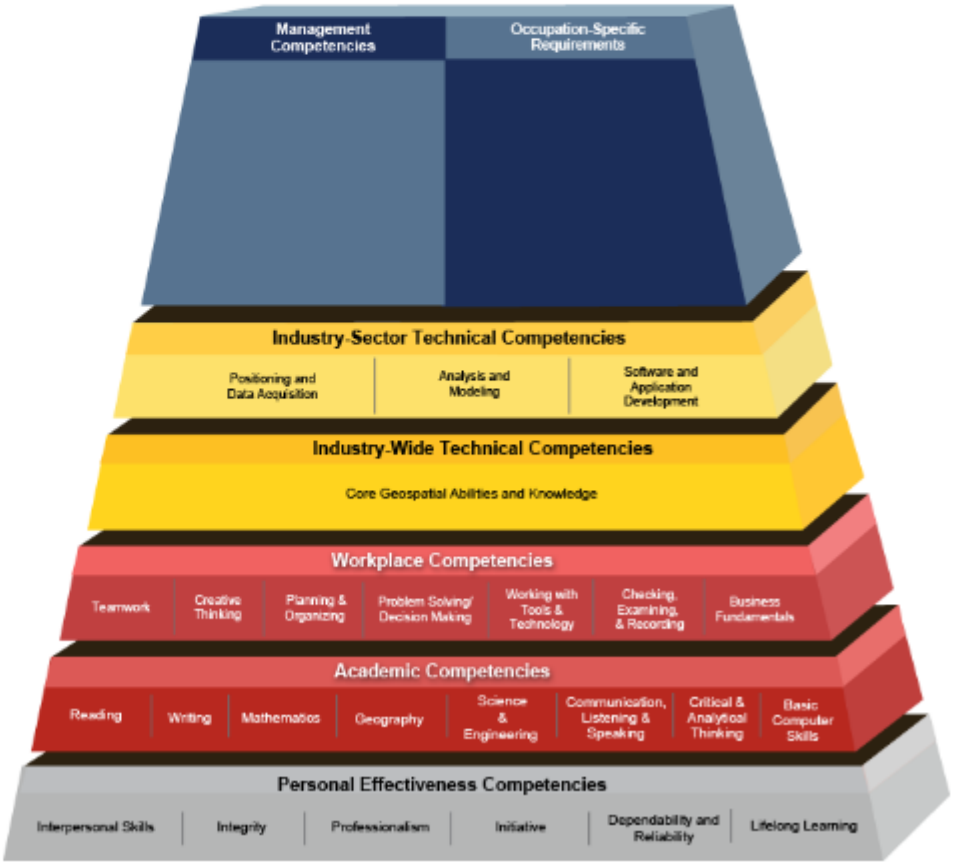
## Geospatial Technology Competency Model

In collaboration with the GeoTech Center, the Employment and Training Administration (ETA) has worked with industry and education leaders to develop a comprehensive competency model for Geospatial Technology. The model is designed to evolve along with changing skill requirements. The GeoTech Center will work with its partners to keep the model current.

GeoTECH
GEOTECHCENTER.ORG

Scroll down to view the industry model selected. OR Click on Industry Competency Models on the top navigation to view the Building Blocks.

**Geospatial Technology Competency Model**



# Competency Model Case Summaries

- How to Use Competency Models
- Searching the Resource Database

**General Instructions**

- Frequently Asked Questions
- Technical Assistance Guide
- Build a Competency Model
- Build a Career Ladder/Lattice
- Competency Models: A Review of the Literature and the Role of the Employment and Training Administration (ETA)
- Click here to download the Adobe Reader needed to read PDF files

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z All

**7 records found**

**Page 1 of 2**

Denotes a full Case Summary

| Workforce Use | User | State |
|---|---|---|
| Certification, Licensure, and Assessment Development; Curriculum Evaluation, Planning, and Development | Applying the Geospatial Technology Competency Model to Workforce Development | - |

Applying the Geospatial Technology Competency Model to Workforce Development: Geospatial technology is an expanding industry sector with diverse applications in the business world. Occupations such as surveyors, engineers, drafters and computer technologists all use geospatial technology, but each has had its own career and education pathways and credentials. ETA, working in collaboration with the GeoTech Center, developed the Geospatial Technology Competency Model. This resource provides a conceptual framework to inform discussions among employers, educators, economic developers, and public workforce investment professionals about uniform curricula, standards and credentials for geospatial technology occupations. To read more visit http://www.careeronestop.org/competencymodel/info_documents/Geospatial_CaseSummary.pdf. (Case Summary PDF 143 KB)

| | | |
|---|---|---|
| Career Exploration and Guidance; Curriculum Evaluation, Planning, and Development | Geospatial Technology Competency Model Drives Innovation | Virginia |

Geospatial Technology Competency Model Drives Innovation: National and state organizations-the GeoTech Center, GeoTEd, and the National Information Security Geospatial Technologies Consortium-are actively utilizing ETA's Geospatial Technology Competency Model in a variety of innovative interconnected initiatives. These uses include the aligning curricula with employer requirements, professional development for faculty and teachers, creating career awareness of opportunities, and developing articulation/dual enrollment agreements. To read more visit http://www.careeronestop.org/competencymodel/info_documents/GTCM-CaseSummary.pdf. (Case Summary PDF, 71 KB)

# O*NET OnLine

A proud partner of the americanjobcenter network

Occupation Quick Search:

Help | Find Occupations | Advanced Search | Crosswalks | Share | O*NET Sites

## Build your future with O*NET OnLine.

**Welcome** to your tool for career exploration and job analysis!

O*NET OnLine has detailed descriptions of the world of work for use by job seekers, workforce development and HR professionals, students, researchers, and more!

What is O*NET?

### What's New?

New BLS projections and industry info in O*NET Websites

Learn More

Get O*NET news by email or RSS.

### I want to be a...

Start the career you've dreamed about, or find one you never imagined.

Find It Now at My Next Move

### Occupation Search

Keyword or O*NET-SOC Code:

### Find Occupations

Browse groups of similar occupations to explore careers. Choose from industry, field of work, science area, and more.

Bright Outlook

### Advanced Search

Focus on occupations that use a specific tool or software. Explore occupations that need your skills.

Browse by O*NET Data:

### Crosswalks

Connect to a wealth of O*NET data. Enter a code or title from another classification to find the related O*NET-SOC occupation.

Apprenticeship

### ATTN: VETERANS

Put your military skills and experience to work in civilian life. Learn how at:

MY NEXT MOVE FOR VETERANS

Get Started

The Green Economy is changing tasks, skills, and jobs across the country.

Learn More | Search

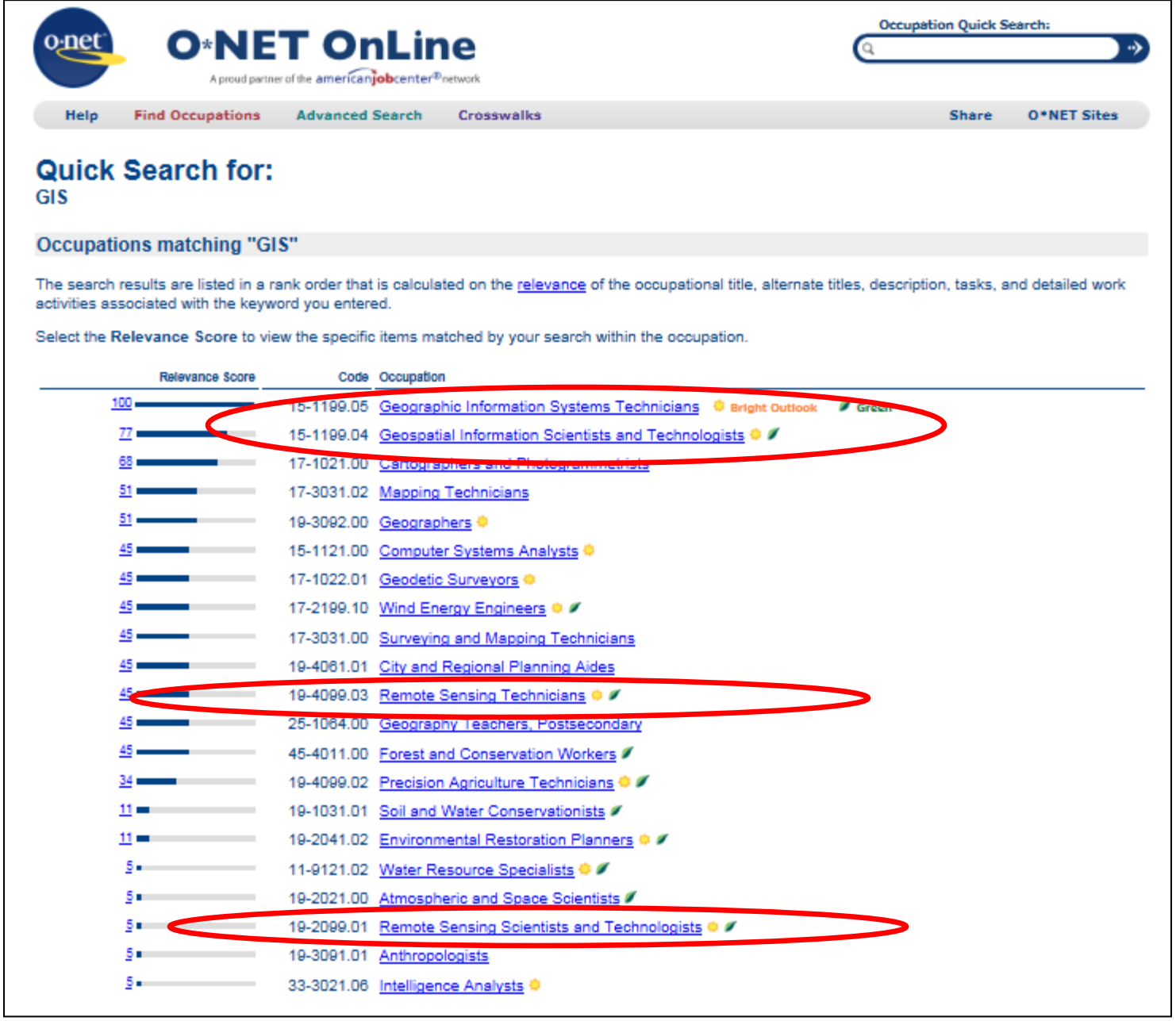
### ¿Habla español?

Mi Próximo Paso incluye tareas, aptitudes, información sobre salarios y más de 900 carreras diferentes.

MI PRÓXIMO PASO Visite

O*NET OnLine is sponsored by the U.S. Department of Labor, Employment & Training Administration, and developed by the National Center for O*NET Development.

# Related Occupations in O*NET OnLine



# Summary Report for:
## 19-2099.01 - Remote Sensing Scientists and Technologists

Updated 2011
Bright Outlook
green

Apply remote sensing principles and methods to analyze data and solve problems in areas such as natural resource management, urban planning, or homeland security. May develop new sensor systems, analytical techniques, or new applications for existing systems.

**Sample of reported job titles:** Remote Sensing Analyst, Scientist, Geospatial Intelligence Analyst, Remote Sensing Program Manager, Remote Sensing Scientist, Research Scientist, Sensor Specialist

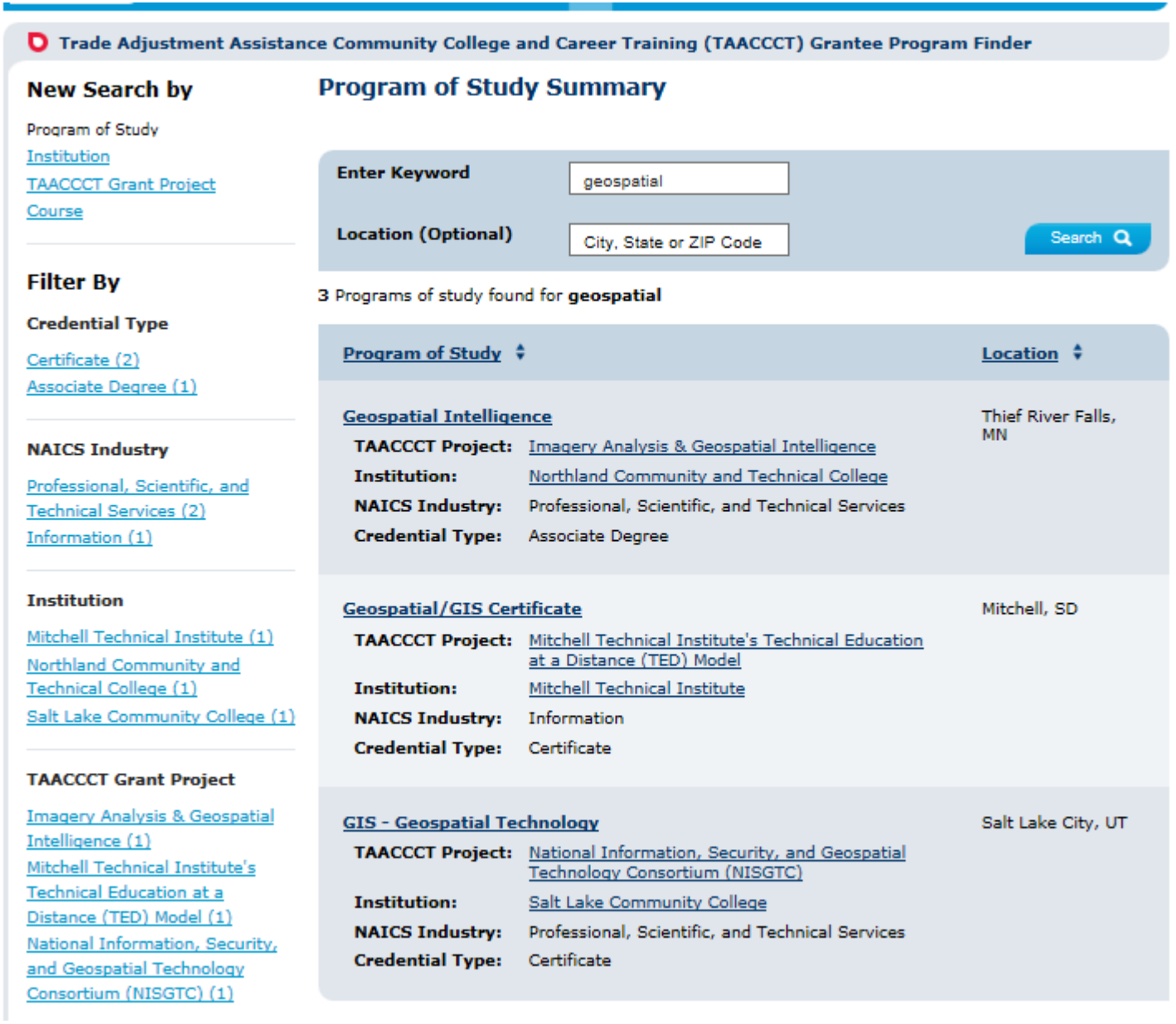
View report: Summary | Details | Custom

Tasks | Tools & Technology | Knowledge | Skills | Abilities | Work Activities | Work Context | Job Zone | Education | Interests | Work Styles | Work Values | Related Occupations | Wages & Employment | Job Openings

## Tasks

- Analyze data acquired from aircraft, satellites, or ground-based platforms, using statistical analysis software, image analysis software, or Geographic Information Systems (GIS).
- Manage or analyze data obtained from remote sensing systems to obtain meaningful results.
- Process aerial or satellite imagery to create products such as landcover maps.
- Develop or build databases for remote sensing or related geospatial project information.
- Monitor quality of remote sensing data collection operations to determine if procedural or equipment changes are necessary.
- Attend meetings or seminars or read current literature to maintain knowledge of developments in the field of remote sensing.
- Prepare or deliver reports or presentations of geospatial project information.
- Conduct research into the application or enhancement of remote sensing technology.
- Discuss project goals, equipment requirements, or methodologies with colleagues or team members.
- Integrate other geospatial data sources into projects.

# CareerOneStop TAACCCT Grantee Program Finder



# http://www.doleta.gov/grants/find_grants.cfm

- **Workforce Innovation Fund Grants – SGA-DFA-PY-13-06** t.
  - **Issue Date: May 14, 2014**
    **Closing Date: June 18, 2014**
    Full Announcement (pdf format)

- **Trade Adjustment Assistance Community College and Career Training Grants Program-SGA-DFA-PY-13-10 Issue Date: April 16, 2014**
  **Closing Date: July 7, 2014**
  Full Announcement (pdf format)
  - **Issue Date: June 5, 2014**
    **Closing Date: July 7, 2014**
    Amendment One (pdf format)

- **Women in Apprenticeship and Nontraditional Occupations (WANTO) Technical Assistance (TA) Grant - SGA-DFA-PY-13-08 Issue Date: April 2, 2014**
  **Closing Date: May 2, 2014**
  Full Announcement (pdf format)

# SGA0—Other Information

**B.** Web-Based Resources

DOL maintains a number of web-based resources that may be of assistance to applicants. For example, the CareerOneStop portal (http://www.careeronestop.org), which provides national and state career information on occupations; the Occupational Information Network (O*NET) Online (http://online.onetcenter.org) which provides occupational competency profiles; and America's Service Locator (http://www.servicelocator.org), which provides a directory of our nation's AJCs.

**C.** Industry Competency Models and Career Clusters

ETA supports an Industry Competency Model Initiative to promote an understanding of the skill sets and competencies that are essential to an educated and skilled workforce. A competency model is a collection of competencies that, taken together, define successful performance in a particular work setting. Competency models serve as a starting point for the design and implementation of workforce and talent development programs. To learn about the industry-validated models visit the Competency Model Clearinghouse (CMC) at http://www.careeronestop.org/CompetencyModel. The CMC site also provides tools to build or customize industry models, as well as tools to build career ladders and career lattices for specific regional economies.

# Excerpt from TAACCCT SGA

- These national industry partners or other organizations that will help scale the strategy should play an integral part in proposals submitted for this option. Applicants will:
- (1) Develop or adapt and map industry competency frameworks for career pathways in high demand industries that are suited for TAA-eligible workers and other adults and that can be used to develop competency-based education programs within state and regional economies leading to an industry-recognized credential;
- (2) Develop and coordinate outreach and educational materials for industry, labor organizations, and postsecondary education institutions about the value and benefits of the programs developed; and
- (3) Demonstrate the adaptation and use of these competency-based frameworks and credentials beyond the applicant and any consortium members (if applicable)

# Standard Occupational Classification (SOC)

- Used for Federal statistical data collection on occupations—Bureau of Labor Statistics, Bureau of the Census, ETA
- Public comments in response to SOC Federal Register Notice due July 21, 2014
- Link to FRN: http://www.bls.gov/soc/FRn_May_22_2014.pdf

# How to provide input to the 2018 SOC Revision

- Review the Classification Principles and Coding Guidelines
- Review the elements of a detailed SOC occupation
- Review the “Input Requested by the SOC Policy Committee”
- Provide information on the nature of the work performed, including specific activities and tasks
- Prepare well-organized and concise comments

# Input requested by SOC Policy Committee

1. Nature of the work performed -- O*NET
2. How the work performed is distinct from other detailed occupations in the SOC
3. Job titles -- O*NET Lay titles file
4. Indications of the number of jobs or workers in the occupation
5. Types of employers
6. Education and Training
7. Licensing
8. Tools and Technology
9. Professional or trade associations or unions

| SOC Code | SOC Title | | |
|---|---|---|---|
| 15-1199 | Computer Occupations, All Other | | |
| | | | |
| O*NET-SOC Code | O*NET-SOC Title | | |
| 15-1199.04 | Geospatial Information Scientists and Technologists | | |
| | | | |
| | Lay (Common) Title | Type | Source(s) |
| | Geographic Information Scientist | | 8 |
| | Geographic Information Systems Administrator (GIS Administrator) | Acronym | 8 |
| | Geographic Information Systems Analyst (GIS Analyst) | Acronym | 8 |
| | Geographic Information Systems Application Specialist (GIS Application Specialist) | Acronym | 8 |
| | Geographic Information Systems Coordinator (GIS Coordinator) | Acronym | 8 |
| | Geographic Information Systems Data Administrator (GIS Data Administrator) | Acronym | 8 |
| | Geographic Information Systems Data Manager (GIS Data Manager) | Acronym | 8 |
| | Geographic Information Systems Data Specialist (GIS Data Specialist) | Acronym | 8 |
| | Geographic Information Systems Database Administrator (GIS Database Administrator) | Acronym | 8 |
| | Geographic Information Systems Engineer (GIS Engineer) | Acronym | 8 |
| | Geographic Information Systems Geographer (GIS Geographer) | Acronym | 8 |
| | Geographic Information Systems Manager (GIS Manager) | Acronym | 8 |
| | Geographic Information Systems Physical Scientist (GIS Physical Scientist) | Acronym | 8 |
| | Geographic Information Systems Scientist (GIS Scientist) | Acronym | 8 |
| | Geographic Information Systems Specialist (GIS Specialist) | Acronym | 8 |
| | Geographic Information Systems Technologist (GIS Technologist) | Acronym | 8 |
| | Geographical Information System Analyst (GIS Analyst) | Acronym | 8 |
| | Geospatial Analyst | | 8 |
| | Geospatial Engineer | | 8 |
| | Geospatial Information Scientist | | 8 |
| | Geospatial Information Technologist | | 8 |
| | Geospatial Scientist | | 8 |
| | Geospatial Specialist | | 8 |
| | Geospatial Technologist | | 8 |

# CareerOneStop Certification Finder tool

## Certification Results

8 certification(s) from 4 organization(s) found

| Certification Name | Certifying Organization | Type | |
|---|---|---|---|
| Geographic Information Systems Professional | GIS Certification Institute | Advanced | |
| Certified GIS/LIS Technologist | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core | 15-1199.04 and 15-1199.05 |
| | | | |
| Certified Remote Sensing Technologist | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core | 19-2099.01 and 19-2099.03 |
| Certified Mapping Scientist, Remote Sensing (ASPRS) | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Advanced | |
| Certified Photogrammetric Technologist | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core | |
| Certified Photogrammetrist (ASPRS) | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core | |
| Certified Mapping Scientist, GIS/LIS (ASPRS) | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Advanced | |
| Cadastral Mapping Specialist | International Association of Assessing Officers | Specialty | |
| Oracle Spatial 11g Certified Implementation Specialist | Oracle Corporation | Product/ Equipment | |

"remote sensing" Search

**Keyword**

"remote sensing"

## New Search by

**Related Occupations**

Remote Sensing Scientists and Technologists

Remote Sensing Technicians

Geodetic Surveyors

Precision Agriculture Technicians

## Filter By

**Industry**

Professional, Scientific, and Technical Services (6)

Architectural, Engineering, and Related Services (3)

**Type**

Core (4)

Advanced (2)

## aboutthisdata:

Data compiled and maintained by CareerOneStop and exclusively available on the CareerOneStop site.

Read more

**6** certification(s) from **1** organization(s) found for **"remote sensing"**

| Certification Name | Certifying Organization | Type |
|---|---|---|
| Certified Remote Sensing Technologist C M | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core |
| Certified Mapping Scientist, Remote Sensing (ASPRS) C M | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Advanced |
| Certified Photogrammetric Technologist C M | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core |
| Certified Photogrammetrist (ASPRS) C M | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core |
| Certified GIS/LIS Technologist M | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Core |
| Certified Mapping Scientist, GIS/LIS (ASPRS) C M | American Society for Photogrammetry and Remote Sensing - Imaging & Geospatial Information Society | Advanced |