GISP: A Student Perspective

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GISP – An Updated Perspective

Certification
GISP Certification History
GISP Current Process
Exam Creation
Future Direction
GISP – An Updated Perspective

Why does any certification exist for any industry?

Any existing certification follows a similar path:
HOW DO WE MOVE FROM THE BIRTH OF AN INDUSTRY TO CERTIFICATION?
One certification leads to another

- Managerial Certification
- Higher Level Certification
- Entry Level Certification
- General Certification
- Provisional Certification
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CERTIFICATION vs LICENSURE
Over 1,600 Certifications Exist
The GISP is our only one!
ACTIVE GISP: CERTIFICATION HISTORY

- 2017 – 8,000+
- 2015 – 7,000+
  - Exam Added
- 2014 – 5,900
- 2012 – 5,159
- 2011 – 4,946
- 2010 – 4,729
- 2009 – 4,526
- 2008 – 3,224
- 2007 – 1,920
- 2006 – 1,375
- 2005 – 974
- 2004 – 552
- 2003 – PILOT 29
ACTIVE GISP:  CERTIFICATION HISTORY

2004 - 2017 -  8,000 + Active GISP
2015 - 2017 - 10,000+ Potential GISP have registered on the GISCI site to start/explore the process
2017 & beyond – 20,000 + by 2024?
One of the strengths of GISCI has been the strong and diversified Board representation over the years!

Our current Board makeup reflects that same passion, experience, and service.

GISCI is composed of Member Organizations & Strategic Partners
Member Organizations
Strategic Partners 2015
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Initial GISP: Portfolio Requirement + Exam

- Ethics Statement
- 4 Years Min Geospatial Experience
- Portfolio Application
  - Education, Experience, Contributions
  - Minimum Points Req in Each Category
- GISCII Geospatial Core Technical Knowledge Exam Now Required
GISP Current Process

Recertification: Portfolio Requirement

- Education & Contributions Required
- Experience Optional
- Exam Not Required for Recertification

- Online Application
- 3 Year Recertification Period
Initial GISP Cost:

• Application Fee - $100
• Portfolio Review Fee - $100
• Exam Fee - $250 North America
• Exam Fee - $300 International
• 3 Year Certification Period
Recertification Cost:

- Annual Maintenance Fee - $95/year or $285 as one payment
- No Exam Required
- 3 Year Certification Period
- Recertification Application Online
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Exam Creation History

Aug 2012  -  GISCI Board Selects Exam Development Project Mgr & Psychometric Consultant – Starts Job Analysis

Nov 2015  -  Inaugural Exam Deployment

Summer 2016 -  Exam Testing Window

Fall 2016    -  Exam Testing Window
Exam Creation

- Written by GISP for GISP Certification
- Composed at a 4 Year Experience Level
- Centered on Applied Knowledge
Exam Creation Considerations

MAJOR CONSIDERATIONS

• The Exam is required in addition to the Portfolio Process
• Two Exam offerings each year in 2016 & 2017
• Exam can be taken at any time in a person’s career
• Students can test at the time they graduate or before
• There is a 6 year window to complete all parts of Certification process
Exam Creation

EXAM BLUEPRINT: Exam Components

Knowledge Category

- Conceptual Foundations: 12%
- Cartography & Visualization: 14%
- GIS Design Aspects & Data Modeling: 29%
- GIS Analytical Methods: 17%
- Data Manipulation: 15%
- Geospatial Data: 13%

Based on 100 scored items on a 4 hr exam with 180 questions total

Exam to be offered every 6 months – Summer & Fall Windows
Exam Creation

EXAM BLUEPRINT: Exam Components

Knowledge Category

Conceptual Foundations 12%
- 101 - Knowledge of spatial relationships
- 102 - Knowledge of standard spatial data models (vector, raster, object-related models)
- 103 – Understanding the conceptual foundations
- 104 - Knowledge of Earth geometry
- 105 - Knowledge of georeferencing systems, including coordinate systems

Cartography & Visualization 14%
- 206 - Knowledge of contour mapping
- 207 - Knowledge of basic physical geography
- 208 - Knowledge of how data collection methods influence map design
- 209 – Knowledge of graphic representation
- 210 - Knowledge of principles of map design
- 211 - Understanding of how data classification techniques affects the thematic map
Exam Creation

EXAM BLUEPRINT: Exam Components

Knowledge Category

GIS Design Aspects & Data Modeling 29%
• 312 - Knowledge of data exchange procedures
• 313 - Knowledge of security restrictions on data
• 314 – Knowledge of database administration
• 315 - Knowledge of systems architecture & design
• 316 - Knowledge of the enterprise environment
• 317 - Knowledge of schemas and domains
• 318 – Knowledge of digital file management
• 319 – Knowledge of database design
• 320 - Knowledge of database general structure
• 321 – Knowledge of geospatial data structure
• 322 – Understanding of desktop, server, enterprise, and hosted applications
• 323 - Working knowledge of GIS hardware and software capabilities
• 324 – Knowledge of data models, including vector, raster, grid, TIN, etc.
Exam Creation

EXAM BLUEPRINT: Exam Components

Knowledge Category

GIS Analytical Methods 17%

- 425 - Knowledge of overlay analysis
- 426 - Knowledge of planar geometry (e.g., Points, lines, polygons)
- 427 - Knowledge of algebra
- 428 - Knowledge of statistics
- 429 - Knowledge of basic programming
- 430 – Knowledge of raster/vector principles
- 431 – Knowledge of scales (e.g., visual, verbal, relative, absolute)
- 432 – Knowledge of units of measurement (e.g., conversion & angular vs. metric)
EXAM BLUEPRINT: Exam Components

Knowledge Category

Data Manipulation 15%
- 533 - Knowledge of selection queries
- 534 - Knowledge of different data types (e.g., shp, GDB, coverage, DGN, TXT, IMG)
- 535 - Knowledge of different field types
- 536 - Knowledge of data relationships
- 537 - Knowledge of data collection
- 528 - Knowledge of data quality, including accuracy, precision

Geospatial Data 13%
- 639 - Knowledge of metadata and standards
- 640 - Understanding of the difference between geospatial QC & QA
- 641 - Knowledge of date archiving and retrieval
- 642 - Knowledge of differences among join, merge, union, clip, intersect
- 643 - Knowledge of basic field data
- 644 - Knowledge of basic field data collection
PREPARE FOR AN EXAM

• Download and study the Exam Candidate Manual from GISCI’s site
  – Concentrate on the 44 KSAs identified
• Examine the GIS&T Body of Knowledge for reference material
• Examine URISA’s site for Exam Preparation Workshop Info
• Search the web for individual KSA materials
• Refer to your own textbooks and class materials
• Visit previous exam taker’s searched materials (link on our site)

https://docs.google.com/document/d/1wifTSbtaR_5oT14U_6aydFmArLp
kML8Fd4lMwqIf8qg/edit?usp=sharing

https://docs.google.com/document/d/1ioKARKLJJpG3lFbPqSqXxNHIdVBo
BTrfQ-H9ivXs_w/edit?usp=sharing
Exam Creation

PREPARE FOR AN EXAM

• Visit the GeoTech Center website
  – www.geotechcenter.org
• Take the Personal Assessment Tool Online Survey

• Look for a geospatial practice exam early in the 2nd Qtr 2017
• Exam preparation materials will follow

The key is to focus on the 44 KSAs covered – NOT the entire geospatial world!
Exam Creation

ADVANTAGES OF AN EXAM

• Provides for a Measurable Level of Competency
• Provides Increased Visibility for GISP Professional Certification
• Builds Upon The Established, Successful GISP Portfolio
• Provides for Increased Student Participation
• Provides An Entry For Students Early In Their Careers
• Provides A Basis For A Move To More Specialized Certifications
• It Continues To Advance And Consolidate The Profession
• More companies now recognize the GISP as a preferred credential
Exam Creation

ADVICE TO A STUDENTS & ASPIRING PROFESSIONALS

• Start a profile on LinkedIn & maintain it
• Plan to take the GISCI Exam as a means to differentiate yourself
• Join an association while in school and remain active
• Attend a local GIS User Group
• Start planning to become a GISP in the future
• Show an employer you are looking to the future
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• Exam Maintenance & Updating
• GISP Certification Specializations
• Increased International Growth
• New Member Organizations
• Increased participation - 20,000 GISP by 2024?
Member Organizations

- NSGIC
- URISA
- gita
- GLIS
- UCGIS
- AAG
THANK YOU!

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www.gisci.org