

## GISCI Geospatial Core Technical Knowledge Exam ® Knowledge Categories

### Revised Exam Blueprint Cross-reference to Original Exam Blueprint

**July 2019**

This table provides a cross-reference between the current exam blueprint KSA (knowledge, skills, and abilities) numbers and the KSA numbers on the original blueprint. Approximately 92% of the original exam blueprint content transferred to the revised blueprint; approximately 8% of the revised blueprint material is new. This information is for general reference only.

Current KSA	<b>1. Conceptual Foundations</b>	Original KSA(s)
101	Understanding of datums, coordinate systems, and projections	105
102	Understanding of representation of discrete features and continuous phenomena in GIS	103
103	Knowledge of earth geometry and its approximations	104
104	Knowledge of basic geomatics and relationships to GIS	643

Current KSA	<b>2. Geospatial Data Fundamentals</b>	Original KSA(s)
201	Understanding of spatial data models and their associated planar geometries	102, 324,426
202	Understanding of spatial data relationships	536
203	Understanding of data quality	538,640
204	Understanding of data resolution	538
205	Understanding of data validation and uncertainty	640, 103
206	Understanding of metadata	639
207	Knowledge of temporal data	103
208	Knowledge of spatial data standards, including ISO, FGDC, and OGC	639

Current KSA	<b>3. Cartography &amp; Visualization</b>	Original KSA(s)
301	Understanding of graphic representation techniques and implications	209
302	Understanding of map design principles and essential map elements	210,211,431
303	Understanding of surface interpretation and representation	206,207, 209
304	Understanding of 2D and 3D visualization	206

Current KSA	<b>4. Data Acquisition</b>	Original KSA(s)
401	Understanding of digitization and other manual data collection and conversion methods	208,537
402	Knowledge of field data collection	644
403	Knowledge of automated data collection and conversion methods	537, partially new
404	Knowledge of remotely sensed data sources and collection methods	643
405	Knowledge of acquisition, use, and limitations of crowdsourced and open source data and services	323,322,538, partially new

Current KSA	5. Data Manipulation	Original KSA(s)
501	Understanding of georeferencing, data format conversion, and data transformation	312,105,537
502	Understanding of spatial data generalization operations and methods	103,209
503	Understanding of spatial file types and their applications and limitations	534,318,321
504	Understanding of data integration	534, 537, 538, partially new

Current KSA	6. Analytical Methods	Original KSA(s)
601	Understanding of data selection queries and views	533
602	Understanding of techniques and implications of data classification	211
603	Understanding of analytical operations and methods	425
604	Knowledge of map algebra	427
605	Knowledge of descriptive and spatial statistics	428

Current KSA	7. Database Design & Management	Original KSA(s)
701	Understanding of relationships among database objects	317,320,536
702	Understanding of database design	319,536
703	Knowledge of database management and administration	314
704	Knowledge of data security	313

Current KSA	8. Application Development	Original KSA(s)
801	Knowledge of data transfer protocols	312,537
802	Knowledge of coding, scripting, and modeling basics	429
803	Awareness of basic application development methods	322

Current KSA	9. Systems Design & Management	Original KSA(s)
901	Knowledge of systems architecture and design, including various GIS softwares, platforms, and environments	315,316,322,323
902	Knowledge of systems and application security	313
903	Awareness of trends in geospatial technology	643, partially new

Current KSA	10. Professional Practice	Original KSA(s)
1001	Understanding of appropriate interpretation of work-related policies and procedures	new
1002	Understanding of ethics related to technical GIS work	643, partially new
1003	Knowledge of managing, documenting, and communicating GIS work	new
1004	Awareness of how GIS is used across other professions	643, partially new
1005	Awareness of GIS-related professional organizations and certification	new